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9 International Capital Flows and Domestic Economic Policies

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9.1 Introduction

When consumer electronics roll off the assembly line in Singapore, when there is a bumper wheat crop in China, or when shoe production expands in Italy, the relevance to U.S. producers and consumers is tangible. The large U.S. trade deficit has become a source of concern familiar to Americans. When Japan liberalizes portfolio guidelines for life insurance companies, when there is a collapse of investment opportunities in Latin America, or when fixed brokerage commissions are abolished in the City of London, the relevance for Americans is much less tangible. But the international flow of capital is no less important than the flow of goods. Indeed, there is an important sense in which capital flows have been the cause of the U.S. trade deficit in the 1980s, with U.S. government macroeconomic policies the driving force behind it all.

International capital movements affect the U.S. economy in a number of ways. Banks, securities companies, and other providers of financial services constitute the sector of the American economy that is most directly affected. They now compete with financial institutions in Tokyo, London, and Frankfurt, and around the world. Exports of financial and other services are a growing credit item in the U.S. balance of payments, and the current U.S. administration has placed a high priority on more favorable treatment of U.S. financial institutions in bilateral trade negotiations, and on liberalization of trade in services

generally in the Uruguay round of negotiations under GATT (General Agreement on Tariffs and Trade).

The impact of international capital flows reaches far beyond a single sector of the American economy, however. Every U.S. firm feels the effect, which comes through two main channels. First is the availability of capital, as reflected in interest rates. Large corporations increasingly often borrow from foreign residents, and portfolio managers increasingly invest abroad. But even the many firms that borrow only at home, or the many individuals who hold only domestic assets, are affected, because U.S. interest rates are increasingly determined on world capital markets jointly with other countries' interest rates. The second channel through which U.S. producers are affected is the exchange rate, which by the 1980s has become overwhelmingly determined by flows of capital rather than flows of goods. Again, even those firms that do not export are affected, to the extent that they compete with imports or buy imported inputs.

This paper is organized in five sections. Section 9.2 reviews briefly the postwar history of the U.S. capital account up to the 1970s, a period throughout which Americans were steadily building up a positive net foreign investment position. Section 9.3 considers those factors, other than expected rates of return, that discourage or encourage international capital flow: transactions costs, government controls, taxes, default and other political risk, and exchange risk. The record is generally one of gradually diminishing barriers. Section 9.4 describes the historic swing of the U.S. capital account in the 1980s toward massive borrowing from abroad. Section 9.5 examines international differences in rates of return on various assets and shows how the increase in interest rates in the United States in the early 1980s attracted the large net capital inflows. Section 9.6 concludes the paper with an analysis of U.S. government policies—monetary, tax, and spending—in determining U.S. saving, investment, and the net capital inflow. The lesson that emerges is that the primary source of the large U.S. borrowing from abroad, and therefore of its counterpart the large U.S. trade deficit, is the federal budget deficit.

9.2 Net U.S. Capital Outflows in the Period 1946–80

Table 9.1 presents the figures for the U.S. balance of payments from 1946 to 1985. The first half of the table breaks down the current account into its components: merchandise trade, investment income, travel and transportation, other services, and so forth. The second half of the table shows the components of the reverse side of the balance of payments coin, the capital account. Until the last few years of this period, private capital was on net steadily flowing out of the country. But the story nevertheless features a number of twists and turns over the years.

9.2.1 The Period of "Dollar Shortage"

In the immediate aftermath of World War II, the United States ran large trade surpluses, as measured either by the merchandise balance (goods alone) or the balance on goods and services. These surpluses were the counterpart to large trade deficits in Europe and elsewhere in the world. The war-ravaged countries had lost much of their industrial and agricultural capacity, and needed to import basic necessities of consumption, as well as capital goods to rebuild their economies. They had a shortage of dollars with which to buy such goods. The flow of goods from the United States to Europe was financed partly by foreign aid and other transfers, partly by lending, and partly by an increase in U.S. official holdings of international reserves. This last means that the United States was running a surplus in its overall balance of payments: the surplus in the current account—defined as goods, services, and transfers—was greater than the net private capital outflows.

In the 1950s, as the European and other economies recovered, their trade balances improved and, as a natural consequence, the U.S. trade surplus returned to more normal levels. By the end of the decade, the surplus in goods and services had fallen below the deficit in transfers and private capital flows, so the United States was running substantial overall balance of payments deficits.

9.2.2 The Balance of Payments Problem in the 1960s

One could view the emerging U.S. deficit of this period, and the rest of the world's surplus, as the natural outcome of steady worldwide growth under the "dollar standard." Although the 1944 conference at Bretton Woods, New Hampshire, that established the postwar international monetary system did not give the U.S. dollar this role officially, the dollar soon became the de facto reserve currency of the system, because it was convertible into gold and because of the economic wealth and political prestige of the United States. As world trade grew, countries needed to hold growing levels of reserves, and running balance of payments surpluses was the only way other countries had of acquiring dollar reserves. This is the sense in which the U.S. balance of payments deficits could be viewed as a natural consequence of worldwide economic growth under the monetary system. Nevertheless, the increasing ratio of dollars held abroad to gold held by the U.S. government began to cause concern. It seemed that the system could only become more and more vulnerable over time to a crisis in which the holders of dollars around the world would try to cash in their claims for gold and the United States would be unable to pay.

In the early 1960s, the balance of payments deficit was entirely a deficit of the capital account. The merchandise trade balance, goods and services balances, and current account were all in substantial sur-

Table 9.1 **International Statistics of U.S. International Transactions, 1946–85 (millions of dollars)**

Year or Quarter	Merchandise[a,b]			Investment Income[c]			Net Military Transactions	Net Travel and Transportation	Other Services Net[c]	Balance on Goods and Services[a,d]	Remittances Pensions, and Other Unilateral Transfers[a]	Current Account[a,d]
	Exports	Imports	Net	Receipts	Payments	Net						
1946	11,764	−5,067	6,697	772	−212	20,565	−493	733	310	7,807	−2,922	4,885
1947	16,097	−5,973	10,124	1,102	−245	857	−455	946	145	11,617	−2,625	8,992
1948	13,265	−7,557	5,708	1,921	−437	1,484	−799	374	175	6,942	−4,525	2,417
1949	12,213	−6,874	5,339	1,831	−476	1,355	−621	230	208	6,511	−5,638	873
1950	10,203	−9,081	1,122	2,068	−559	1,509	−576	−120	242	2,177	−4,017	−1,840
1951	14,243	−11,176	3,067	2,633	−583	2,050	−1,270	298	254	4,399	−3,515	884
1952	13,449	−10,838	2,611	2,751	−555	2,196	−2,054	83	309	3,145	−2,531	614
1953	12,412	−10,975	1,437	2,736	−624	2,112	−2,423	−238	307	1,195	−2,481	−1,286
1954	12,929	−10,353	2,576	2,929	−582	2,347	−2,460	−269	305	2,499	−2,280	219
1955	14,424	−11,527	2,897	3,406	−676	2,730	−2,701	−297	299	2,928	−2,498	430
1956	17,556	−12,803	4,753	3,837	−735	3,102	−2,788	−361	447	5,153	−2,423	2,730
1957	19,562	−13,291	6,271	4,180	−796	3,384	−2,841	−189	482	7,107	−2,345	4,762
1958	16,414	−12,952	3,462	3,790	−825	2,965	−3,135	−633	486	3,145	−2,361	784
1959	16,548	−15,310	1,148	4,132	−1,061	3,071	−2,805	−821	573	1,166	−2,448	−1,282
1960	19,650	−14,758	4,892	4,616	−1,237	3,379	−2,752	−964	579	5,132	−2,308	2,824
1961	20,108	−14,537	5,571	4,999	−1,245	3,754	−2,596	−978	594	6,346	−2,524	3,822

1962	20,781	−16,620	4,521	5,618	−1,324	4,294	−2,449	−1,152	809	6,025	−2,638	3,387
1963	22,272	−17,048	5,224	6,157	−1,561	4,596	−2,304	−1,309	960	7,167	−2,754	4,414
1964	25,501	−18,700	6,801	6,824	−1,784	5,040	−2,133	−1,146	1,041	9,604	−2,781	6,823
1965	26,461	−21,510	4,951	7,437	−2,088	5,349	−2,122	−1,280	1,387	8,285	−2,854	5,432
1966	29,310	−25,493	3,817	7,528	−2,481	5,047	−2,935	−1,331	1,365	5,963	−2,932	3,031
1967	30,666	−26,866	3,800	8,020	−2,747	5,273	−3,226	−1,750	1,612	5,708	−3,125	2,583
1968	33,626	−32,991	635	9,368	−3,378	5,990	−3,143	−1,548	1,630	3,563	−2,952	611
1969	36,414	−35,807	607	10,912	−4,869	6,043	−3,328	−1,763	1,833	3,393	−2,994	399
1970	42,469	−39,866	2,603	11,747	−5,516	6,231	−3,354	−2,038	2,180	5,625	−3,294	2,331
1971	43,319	−45,579	−2,260	12,707	−5,436	7,271	−2,893	−2,345	2,495	2,269	−3,701	−1,433
1972	49,381	−55,797	−6,416	14,764	−6,572	8,192	−3,420	−3,063	2,766	−1,941	−3,854	−5,795
1973	71,410	−70,499	911	21,808	−9,655	12,153	−2,070	−3,158	3,184	11,021	−3,881	7,140
1974	98,306	−103,811	−5,505	27,587	−12,084	15,503	−1,653	−3,184	3,986	9,147	−7,186[e]	1,962
1975	107,088	−99,185	8,903	25,351	−12,564	12,787	−746	−2,182	4,598	22,729	−4,613	18,116
1976	114,745	−124,228	−9,453	29,286	−13,311	15,975	559	−2,558	4,711	9,205	−4,998	4,207
1977	120,816	−151,907	−31,091	32,179	−14,217	17,962	1,528	−3,565	5,272	−9,894	−4,167	−14,511
1978	142,054	−176,001	−33,947	42,245	−21,680	20,565	621	−3,573	6,013	−10,321	−5,106	−15,427
1979	184,473	−212,009	−27,536	64,132	−32,960	31,172	−1,778	−2,995	6,214	5,138	−6,128	−991
1980	224,269	−249,749	−25,480	72,506	−42,120	30,386	−2,237	−997	7,793	9,466	−7,593	1,873
1981	237,085	−265,063	−27,978	86,411	−52,329	34,082	−1,183	144	8,699	13,764	−7,425	6,339
1982	211,198	−247,642	−36,444	85,549	−54,883	28,666	−274	−992	8,829	−214	−8,917	−9,131
1983	201,820	−268,900	−67,080	77,251	−52,410	24,841	−369	−4,227	9,711	−37,123	−9,481	−46,604
1984	219,900	−322,422	−112,522	86,221	−67,469	18,752	−1,827	−8,593	9,881	−94,308	−12,157	−106,466
1985	214,424	−338,863	−124,439	89,991	−64,803	25,188	−2,917	−11,128	10,603	−102,694	−14,983	−117,677

Table 9.1 (continued)

Year or Quarter	U.S. Assets Abroad, Net (increase/capital outflow [−])				Foreign Assets in the U.S., Net (increase/capital outflow [−])				Statistical Discrepancy	
	Total	U.S. Official Reserve Assets[f]	Other U.S. Government Assets	U.S. Private Assets	Total	Foreign Official Assets	Other Foreign Assets	Allocations of Special Drawing Rights (SDRs)	Total (Sum of the Items with Sign Reversed)	Overall
1946	—	−623	—	—	—	—	—	—	—	—
1947	—	−3,315	—	—	—	—	—	—	—	—
1948	—	−1,736	—	—	—	—	—	—	—	—
1949	—	−266	—	—	—	—	—	—	—	—
1950	—	1,758	—	—	—	—	—	—	—	—
1951	—	−33	—	—	—	—	—	—	—	—
1952	—	−415	—	—	—	—	—	—	—	—
1953	—	1,256	—	—	—	—	—	—	—	—
1954	—	480	—	—	—	—	—	—	—	—
1955	—	182	—	—	—	—	—	—	—	—
1956	—	−869	—	—	—	—	—	—	—	—
1957	—	−1,165	—	—	—	—	—	—	—	—
1958	—	2,292	—	—	—	—	—	—	—	—
1959	—	1,035	—	—	—	—	—	—	—	—
1960	−4,099	2,145	−1,100	−5,144	2,294	1,473	821	—	−1,019	−3,618
1961	−5,538	607	−910	−5,235	2,705	765	1,939	—	−989	−1,372
1962	−4,174	1,535	−1,085	−4,623	1,911	1,270	641	—	−1,124	−2,805
1963	−7,270	378	−1,662	−5,986	3,217	1,986	1,231	—	−360	−2,354
1964	−9,560	171	−1,680	−8,050	3,643	1,660	1,983	—	−907	−1,831
1965	−5,716	1,225	−1,605	−5,336	742	134	607	—	−458	−1,359

1966	−7,321	570	−1,543	−6,347	3,661	−672	4,333	—	629	102
1967	−9,757	53	−2,423	−7,386	7,379	3,451	3,928	—	−205	−3,604
1968	−10,977	−870	−2,274	−7,833	9,928	−774	10,703	—	438	1,644
1968	−11,585	−1,179	−2,200	−8,206	12,702	−1,301	14,002	—	−1,516	2,470
1970	−9,337	2,481	−1,589	−10,229	6,359	6,908	−550	867	−219	−10,258
1971	−12,475	2,349	−1,884	−12,940	22,970	26,879	−3,909	717	−9,779	−29,945
1972	−14,497	−4	−1,568	−12,925	21,461	10,475	10,986	710	−1,879	−11,181
1973	−22,874	158	−2,644	−20,388	18,388	6,026	12,362	—	−2,654	−6,184
1974	−34,745	−1,467	366[e]	−33,643	34,241	10,546	23,696	—	−1,458	−9,077
1975	−39,703	−849	−3,474	−35,380	15,670	7,027	8,643	—	5,917	−6,173
1976	−51,269	−2,558	−4,214	−44,498	36,518	17,693	18,826	—	10,544	−15,135
1977	−34,785	−375	−3,693	−30,717	51,319	36,816	14,503	—	−2,023	−36,441
1978	−61,130	732	−4,660	−57,202	64,036	33,678	30,358	—	12,521	−34,410
1979	−64,331	−1,133	−3,746	−59,453	38,752	−13,665	52,416	1,139	25,431	13,654
1980	−86,118	−8,155	−5,162	−72,802	58,112	15,497	42,615	1,152	24,982	8,494
1981	−111,031	−5,175	−5,097	−100,758	83,322	4,960	78,362	1,093	20,276	878
1982	−121,273	−4,965	−6,131	−110,177	94,078	3,593	90,486	—	36,325	1,372
1983	−50,022	−1,196	−5,005	−43,821	85,496	5,968	79,527	—	11,130	−4,772
1984	−23,639	−3,131	−5,523	−14,986	102,767	3,037	99,730	—	27,338	54
1985	−32,436	−3,858	−2,824	−25,754	127,106	−1,324	128,430	—	22,006	5,182

Source: Department of Commerce, Bureau of Economic Analysis.

Notes: The data are seasonally adjusted, except as noted; (+) = credits; (−) = debits.

[a]Excludes military.

[b]Adjusted from census data for differences in valuation, coverage, and timing.

[c]Fees and royalties from U.S. direct investments abroad or from foreign direct investments in the United States are excluded from investment income and included in other services net.

[d]In concept, balance on goods and services is equal to net exports and imports in the national income and product accounts (and the sum of balance on current account and allocations of special drawing rights is equal to net foreign investment in the accounts), although the series differ because of different handling of certain items (gold, capital gains and losses, etc.), revisions, etc.

[e]Includes extraordinary U.S. government transactions with India.

[f]Consists of gold, special drawing rights, convertible currencies, and U.S. reserve position in the International Monetary Fund (IMF).

plus. But, beginning under the Kennedy administration, capital outflows became the subject of increasing concern. Under Operation Twist, monetary policy sought to raise short-term interest rates to attract short-term capital from abroad, at the same time as long-term interest rates were kept low with the aim of stimulating investment. A series of increasingly strong direct controls on the outflow of capital were also put into place, though they were not very effective: the rise of the Euromarket, outside the grasp of U.S. regulators, dates from this period.

Much of the capital outflow took the form of U.S. direct investment in Europe and elsewhere. Outward direct investment increased from $2.9 billion in 1960 to $10.2 billion in 1970, explaining most of the increase in measured private capital outflow.[1] One view was that the United States was playing a useful role as the world's banker: borrowing short term and lending long term. A bank does it by taking deposits and lending to businesses and homeowners; the world's banker would do it by creating liquid dollar reserves for others to hold and investing in plant and equipment abroad. But some, the French in particular, resented the idea that Americans were buying out their factories and land, offering in return only paper that was less and less adequately backed by gold.

9.2.3 The Breakup of the Bretton Woods System

In the late 1960s, the U.S. balance of payments problem became more of a trade balance problem. The reason was expansionary macroeconomic policies. After 1965, military spending increased rapidly because of the escalation of the Vietnam War. At the same time, domestic spending was increasing under Lyndon Johnson's Great Society program. Furthermore, monetary policy accommodated the expansion, with the exception of a couple of brief attempts at braking. Rapid growth in income resulted directly in rapid growth in imports. The economy also became overheated, giving rise to inflation. U.S. inflation, in a system under which the dollar was supposedly not allowed to devalue, resulted in a gradual loss of competitiveness by American firms on world markets. In 1971, the U.S. trade balance went into deficit for the first time in the postwar period. In response to the trade deficit and to a corresponding loss in reserves, Richard Nixon unilaterally devalued the dollar in terms of both gold and foreign currencies, placed a tariff surcharge on imports, and ended the U.S. government's commitment to sell gold for dollars to foreign central banks. This marked the end of the Bretton Woods system. Most foreign central banks continued to cooperate in the effort to prop up the system of fixed exchange rates, buying up unwanted dollars. But by now, private speculators knew that selling dollars was a good bet. As a result, capital outflows were very high throughout the early 1970s. In the accounts in table

9.1, they show up as an increase in the rate at which U.S. residents acquired claims abroad (and in the statistical discrepancy). In the first few months of 1973, several of the major central banks had to absorb unprecedented quantities of dollars, with no end in sight. In March 1973, they ceased their commitments to buy and sell dollars at fixed exchange rates. In other words, the world moved from the fixed exchange rate system to the current system of floating exchange rates.

With the exchange rate now free to move, the desire of investors to allocate a higher proportion of their portfolios to foreign assets suddenly took the form of an increase in the price of foreign assets in terms of dollars, that is, a depreciation of the dollar. The depreciation meant that American manufacturers and farmers could once again compete in world markets on favorable terms. The current account returned to surplus in the years 1973–76.

9.2.4 Capital Outflow in the Mid-1970s

The rate of net private capital outflow reached a stable plateau in the mid-1970s. This outflow was not primarily a sign of lack of confidence in the U.S. economy, as it had been in 1970–73. Indeed, there were times, for example, in the immediate aftermath of the late-1973 oil crisis, when investors increased their demand for dollar assets.[2] Rather, the United States was behaving as a mature industrialized country generally is expected to behave: running a current account surplus ($18.1 billion in 1975) and investing the proceeds in other countries where they can earn a higher rate of return.

The financial situation began to deteriorate, however, in the latter half of the decade. Following the oil crisis and the 1975 world recession, there was concern, particularly in the United States and in developing countries, that worldwide saving was too high and expenditure too low to sustain growth. There had been a massive transfer of wealth to the members of OPEC, many of whom had a high tendency to save the wealth rather than spend it. The United States undertook steady fiscal and monetary expansion, with the Europeans following only reluctantly and with a delay. The result was rapid growth in U.S. imports and a fall in the trade balance; in 1977 and 1978, the current account registered substantial $15 billion deficits. The Carter administration could have argued that the trade deficits were not cause for concern, but to the contrary, were precisely what was needed: The expansion in demand was sustaining recovery in the United States, and at the same time was allowing those developing countries that were faced with sharply increased oil import bills to earn the foreign exchange to pay them by exporting to the United States. But the record deficits did generate concern. In 1977–78, as it was to again in 1985–87, the U.S. Treasury pressured foreign governments to expand their own economies in order

to increase purchases from the United States. In both episodes, reluctant foreign governments had to face the alternative that the same goal, reducing the U.S. trade deficit, would instead be accomplished by an accelerated depreciation of the dollar.

I will discuss in later sections the declines in real interest rates and in the value of the dollar during this period. Here we note that the swing from surplus to deficit on the current account in 1977–78 was not associated with an offsetting swing from deficit to surplus on the private capital account. Private capital on net continued to flow out at a steady rate of about $20 billion a year.[3] The U.S. current account deficit was financed by increased holdings of U.S. assets on the part of foreign central banks ("official foreign assets" in table 9.1), rather than on the part of foreign private citizens. Much as at the beginning of the decade, foreign central banks were buying dollars in an unsuccessful attempt to prevent the dollar from depreciating and their own currencies from appreciating.

The depreciation of the dollar stimulated exports enough to return the country to a surplus in goods and services in 1979 and 1980. At the same time, the nature of capital flows began to change. This was the end of a long period of steady U.S. net investment abroad.[4] In the 1980s, capital on net began to flow in to finance U.S. trade deficits, reversing the pattern of the preceding ninety years. We will be picking up the story of the capital inflows in section 9.4.

9.3 Risk, Government Controls, and Other Barriers or Incentives to International Capital Movements

Many factors influence investors' decisions to move capital internationally. The most obvious factor is the expected rate of return that can be earned in one country or another. In section 9.5, we will be looking at various measures of rates of return in the United States and other major countries, with special reference to the increased attractiveness of U.S. assets in the early 1980s. But other factors are important as well. Indeed, if investors cared only about expected returns and nothing else, then one would not observe *any* differentials in rates of return. Investors would refuse to buy the assets with the lower return and would have an unlimited demand for the assets with the higher return. In other words, arbitrage would quickly insure that expected returns were equalized.[5] We will see in section 9.5 that this does not quite seem to be the case. In this section we consider factors other than expected rates of return: transactions costs, capital controls, taxes, default risk, and exchange risk.

9.3.1 Transactions Costs

An unavoidable barrier to international capital movements is transactions costs, as represented in the case of securities by a brokerage fee or a bid-ask spread. But this barrier is extremely small for countries with developed financial markets. Several factors have worked to reduce transactions costs steadily over the years. Deregulation, innovation, and economies of scale in international dealings, particularly in the Euromarket, have made the world banking and securities industry more efficient. Some of the many recent innovations in international markets to make the issuance of securities, or the management of the accompanying risk, more convenient for borrowers or lenders include currency and interest rate swaps, dual currency issues, mismatched floating rate notes, zero coupon bonds, equity-related issues, note issuance facilities, and Eurocommercial paper.[6] Reduced telecommunications costs and other technological advances have also been important. The real cost of sending a telegraphic message from New York to London or Paris in 1985 was only 8–9 percent of what it was in 1900, and the real cost of a three-minute off-peak phone call between Washington and Frankfurt was only 5 percent of what it was in 1950 (Cooper 1986, 10).

Another factor, exchange rate variability, has worked to *raise* foreign exchange transactions costs since curencies began to float. To make a market in foreign exchange, banks have to take open positions in foreign currency, even if only briefly, and the riskiness of doing so has gone up with the variability of exchange rates. As a result, bid-ask spreads have generally been higher since 1973 than in the past (Levich 1985, 997–99). Nevertheless, they are still on average small—not high enough to create much of a deterrent to investors' shifting their portfolios in response to a change in the attractiveness of a country's assets.

The result of these reduced costs is a very high volume of financial transactions internationally. For example, a survey by the Federal Reserve Bank of New York in March 1986 documented a very high level of turnover in the New York foreign exchange market: $50 billion a day among banks, 92 percent above the previous survey in April 1983, and $26 billion a day among nonbank financial institutions, up 84 percent over three years earlier.[7] The volume of foreign exchange trading was even greater in London at $90 billion a day.[8]

Due to economies of scale, transactions costs tend to be lower in currencies that are widely used in trade and financial transactions. The U.S. dollar has been the world's vehicle currency ever since it inherited the role from the pound sterling early in the century. A non-U.S. resident wishing to buy assets of a third country generally must buy dollars

Table 9.2 **International Bond Markets, 1982–First Half 1986 (billions of U.S. dollars)**

	1982	1983	1984	1985	1986[a]
Eurodollar issues	42.2	39.2	65.3	96.5	108.2
Foreign dollar issues	6.0	4.7	4.3	4.7	5.8
Total international dollar issues	48.2	43.9	69.6	101.2	114.0
Borrowers (percent of total)					
Australia	1.9	3.2	2.2	2.3	5.9
Canada	17.2	9.8	4.5	5.3	7.8
France	11.6	10.5	8.8	7.3	4.9
Japan	8.3	14.3	14.4	11.9	15.3
United States	25.5	12.9	28.0	28.9	29.3
Euroyen issues	0.6	0.2	1.2	6.5	16.1
Foreign yen issues	3.3	3.9	4.9	6.4	6.7
Total international yen issues	3.9	4.1	6.1	12.9	22.8
Borrowers (percent of total)					
China	—	—	—	3.0	7.8
France	8.8	10.8	8.6	7.6	5.6
Japan	5.3	—	1.3	5.8	8.2
United States	0.1	—	10.7	26.5	30.4
International development organizations	17.1	27.3	25.2	18.4	6.4
Eurodeutsche mark issues	3.3	4.0	4.3	9.5	18.2
Foreign deutsche mark issues	2.1	2.6	2.4	1.7	—
Total international deutsche mark issues	5.4	6.6	6.7	11.2	18.2
Borrowers (percent of total)					
Austria	—	—	—	—	9.1
Germany	1.5	6.0	5.7	13.8	24.6
United States	11.5	4.2	9.3	9.7	7.4
EEC institutions	16.2	15.5	15.5	5.3	8.0
International development organizations	13.8	37.0	21.2	15.0	12.0
Euro–Swiss franc issues	0.1	—	—	—	—
Foreign Swiss franc issues	11.3	13.5	13.1	15.0	23.5
Total international Swiss franc issues	11.4	13.5	13.1	15.0	23.5
Borrowers (percent of total)					
Australia	3.0	1.7	5.3	7.9	4.7
Canada	11.3	9.2	7.6	7.3	3.6
Japan	32.9	49.3	44.4	45.1	30.5
United States	13.0	8.9	9.5	19.0	26.3
International development organizations	10.8	9.9	11.2	11.7	4.7
Other Eurobond issues	4.1	6.7	10.9	22.9	37.7
Other foreign bond issues	2.4	2.3	3.1	3.2	3.1
Total other international bond issues	6.5	9.0	14.0	26.1	40.8
International bond issues	75.4	77.1	109.5	166.4	219.3

Source: Organization for Economic Cooperation and Development, *Financial Statistics Monthly*.

Note: Total international bond issues for 1986 was $225 billion.

[a]First half 1986 annualized.

first, before converting them into the third currency. Banks and large corporations around the world hold dollar transactions balances. In 1985 over 60 percent of international bond issues were denominated in dollars, as can be seen from table 9.2. A disproportionately high share of world trade is also invoiced in dollars.

Other currencies also play a role in international transactions. In ascending order of transactions costs in the ninety-day forward markets, as measured by the percentage bid-offer spread in the period September 1982–December 1985, are the mark, yen, Canadian dollar, Dutch guilder, pound, and Swiss franc.[9] This ranking of the currencies corresponds roughly to their ranking in volume of foreign exchange trading in New York: mark, yen, pound, Swiss franc, Canadian dollar, French franc, and Dutch guilder.[10] In the 1980s, there has been talk of the yen beginning to play a more central role. The use of the yen as a currency in which to invoice trade, issue bonds, and hold reserves is indeed increasing relative to the low levels of the past. The share of yen-denominated issues in international bond markets has gone from 5.2 percent in 1982 to 10.4 percent in 1986, including many U.S. borrowers. This is now a greater share than that of the deutsche mark, as can be seen in table 9.2.[11] However, there is little prospect of the dollar being seriously challenged as the world's vehicle currency.

One might also include the cost of obtaining information in the category of transactions costs as another barrier discouraging residents of one country from holding assets in another. Information costs are relevant, for example, for mortgage holdings because of the difficulty of evaluating the creditworthiness of the borrower. Foreigners hold essentially no mortgages in the United States, while Americans in the aggregate hold about 25 percent of their portfolio in that form. Information costs are not a problem for U.S. Treasury securities on the other hand; indeed the safety and liquidity of U.S. government securities are so attractive to foreigners that they hold about 43 percent of their U.S. portfolio in that form, as compared to about 21 percent for Americans (see table 9.3). Eurobonds issued by well-known U.S. corporations have also been very popular with foreigners in recent years for the same reason.

9.3.2 Capital Controls

In many countries, government controls have been serious barriers to the international flow of capital. The postwar international economic system established at Bretton Woods did not incorporate a presumption, analogous to the one incorporated regarding international trade, about the undesirability of government intervention in international capital markets.

Table 9.3 **Foreign versus Domestic Holdings of Financial Assets, 1984 (billions of dollars)**

	Foreign Holders		Domestic Holders	
	Amount	% of Total	Amount	% of Total
Checkable deposits and currency	$ 19.7	4.4%	$ 582.2	7.1%
Large time deposits	39.4	8.8	392.3	4.8
Short-term U.S. government securities	72.0	16.0		
Long-term U.S. government securities	120.8	26.9	1,709.5	20.8
Other short-term paper	40.9	9.1	266.4	3.2
Corporate bonds	61.8	13.8	588.1	7.2
State-local government securities	0.0	0.0	543.6	6.6
Mortgages	0.0	0.0	2,028.9	24.7
Corporate equities	94.5	21.0	2,090.3	25.5
Total	449.1	100.0	8,201.3	100.0

Sources: Board of Governors of the Federal Reserve System, *Flow of Funds*, various issues; table from Friedman 1986.

Notes: Amount and percentage of total are year-end figures. Short-term U.S. government securities include marketable securities only. Other short-term paper includes commercial paper and bankers acceptances. Foreign holdings of corporate equities exclude foreign direct investment. Totals exclude small time and saving deposits, money market mutual funds, interbank claims, and other miscellaneous assets.

The more common use of controls is to discourage the outflow of capital from a weak-currency country, as in many developing countries, or as in the United States in the 1960s and early 1970s. But they are also sometimes used to discourage capital from flowing into a country, when it wishes to avoid a real appreciation of its currency or is worried about a potential loss in monetary control. For example, Germany and Switzerland had special taxes on interest payments to nonresidents, and maintained other measures to discourage foreigners from holding assets in their countries, until 1975.[12] Though the controls on capital inflow into Germany and Switzerland, like the controls on capital outflow from the United States, were never very effective, their removal no doubt facilitated part of the increased U.S. acquisition of foreign assets in the mid-1970s that shows up in table 9.1.

The United Kingdom maintained controls to discourage capital outflows until 1979. But when Margaret Thatcher came to office, Britain too joined the club of countries with essentially open financial markets, which by then consisted of the United States, Canada, Germany, Switzerland, and the Netherlands.

An interesting case is Japan. Until relatively recently, Japan had very highly regulated capital markets, both domestically and with respect to international transactions. In the period 1975–78, the Japanese controls worked to discourage capital inflow, with the aim of dampening the appreciation of the yen. Foreigners were not allowed to hold gensaki (a three-month repurchase agreement) and other Japanese assets. That the controls worked to discourage capital inflow can be seen by looking at the differential in interest rates between gensaki in Tokyo and three-month Euroyen in London, which averaged 1.84 percentage points:[13] If it were not for the controls, investors would not have been willing to hold Euroyen when a higher interest rate was available in Tokyo.

When the yen began to depreciate rapidly in 1979, the Japanese moved quickly to remove restrictions on foreign purchases of Japanese assets. The differential between the gensaki and Euroyen interest rates dropped sharply. Indeed, the London rate exceeded the Tokyo rate after April 1979, although the differential was relatively small.[14] This is evidence that Japanese controls on capital inflow were liberalized more quickly than controls on capital outflow, with the objective of dampening the depreciation of the yen against the dollar. If some barriers to capital outflow had not remained, Japanese investors would not have been willing to hold assets in Tokyo when a higher interest rate on comparable yen securities was available in London.

A controversy arose in October 1983 when some American businessmen, alarmed by devastating competition from Japanese exporters, convinced top officials in the U.S. Treasury Department, despite the evidence just cited, that the Japanese government was still using some form of capital market restrictions to keep the value of the yen lower than it would otherwise be. There followed a campaign by the U.S. government to induce the Japanese to adopt a whole list of measures further liberalizing their financial markets. This campaign came to fruition in the May 1984 Yen/Dollar Agreement between the U.S. Treasury and the Japanese Ministry of Finance. Measures liberalizing capital inflows included the elimination of the "designated company" system that restricted foreign direct investment in eleven companies. Measures liberalizing capital outflows included relaxation of restrictions on nonresident issue of yen bonds (called samurai bonds when sold in the Japanese market), relaxation of "administrative guidance" on the part of the Ministry of Finance over overseas lending by Japanese banks, and permission to Japanese residents to purchase foreign-issued commercial paper and certificates of deposit. The Ministry of Finance retained ceilings on foreign security holdings by insurance companies and trust banks, equal to 10 percent of total assets, until the ceilings began to become binding in early 1986, at which point they were raised to a much higher level.

The result of the liberalization was an increase in net capital outflows: The Japanese rate of acquisition of long-term assets abroad jumped from $32.459 billion in 1983 to $56.775 billion in 1984,[15] the majority of it in the form of portfolio investment, as shown in table 9.4. The positive offshore-onshore interest differential, which had been fifty basis points (briefly) as recently as November 1983, disappeared altogether in 1984.[16] Furthermore, the yen depreciated another 8 percent against the dollar in 1984. In short, the Yen/Dollar Agreement was successful at increasing Japan's integration into world financial markets, but not at promoting capital inflow into Japan or a short-term appreciation of the yen if that was its goal.

As of early 1986, only France, of the largest industrial countries, maintained capital controls that were clearly binding by the test of interest rate differentials. These are controls on capital outflow that were tightened when the Socialists came to office in 1981. But even the French, like the Italians, are in the process of liberalizing. The offshore-onshore differential, which was 3.88 percent in March 1986,[17] vanished thereafter with the election of Jacques Chirac, at least temporarily.

In the Pacific region, Australia and New Zealand have recently removed their capital controls, and Hong Kong and Singapore have had open financial markets for some time. Elsewhere among developing countries, however, markets remain heavily controlled. Table 9.5 shows onshore-offshore interest differentials for a cross section of twenty-four countries. Many have differentials that are highly variable and significantly negative on average, indicating effective controls on the outflow of capital to the world market.[18]

9.3.3 Taxes

Taxes are a determinant of international capital flows that might be considered a sort of government control. But it is more common that avoiding taxes is an incentive to invest abroad than paying taxes is a barrier to it.

The mere fact that the citizens of one country are taxed at a higher rate than those of another does not necessarily create an incentive for capital flows, assuming both groups of citizens are taxed at the same rate on their foreign interest earnings as on their domestic earnings. But in practice, investors can sometimes evade taxes by keeping their money in tax havens, in the Caribbean and elsewhere. The United States has to an extent played the role of tax haven in recent years. U.S. borrowers have offered bearer bonds, whose ownership depends on physical possession rather than registry, to eager investors in Europe and Latin America.[19]

The requirement that banks hold a certain fraction of their deposits in the form of reserves, rather than lending them out at market interest

Table 9.4 **Long-Term Capital Movements in Japan (millions of U.S. dollars)**

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Foreign capital[a]	3,575	2,063	2,483	3,318	13,141	13,137	12,449	14,759	7,124	17,273
Direct investment	113	21	8	239	278	189	439	416	−10	642
Portfolio investment[a]	1,595	1,256	1,654	2,072	11,877	11,852	7,579	8,485	−156	3,851
Import credits	−5	−13	−22	−33	−16	−15	−6	8	3	29
Loans	326	−324	−7	−169	−231	−186	−181	−37	−77	−75
Bonds	1,509	1,099	833	2,210	1,236	1,368	4,281	5,663	7,350	12,890
Others	37	24	17	−1,001	−3	−71	337	224	14	−64
Japanese capital	−4,559	−5,257	−14,872	−16,294	−10,817	−22,809	−27,418	−32,459	−56,775	−81,915
Direct investment	−1,991	−1,645	−2,371	−2,898	−2,385	−4,894	−4,540	−3,612	−5,965	−6,452
Portfolio investment	−146	−1,718	−5,300	−5,865	−3,753	−8,777	−9,743	−16,024	−30,795	−59,773
Export credits	−571	−1,388	−142	1,288	−717	−2,731	−3,239	−2,589	−4,937	−2,817
Loans	−1,525	−472	−6,299	−8,102	−2,553	−5,083	−7,902	−8,425	−11,922	−10,427
Others	−326	−24	−760	−717	−1,409	−1,324	−1,994	−1,809	−3,156	−2,346
Net[b]	−984	−3,184	−12,389	−12,967	2,324	−9,672	−14,969	−17,700	−49,651	−64,542
Memorandum:										
Net banking flows	−621	1,684	−2,243	−4,020	−13,144	−6,386	−35	3,570	−17,560	−10,848

Source: Bank of Japan, *Balance of Payments Monthly*, in OECD *Economic Survey, Japan*, August 1985 and November 1986.

Note: Minus sign indicates capital outflow.

[a]Excluding foreign investors' gensaki transactions (bond transactions with agreements to repurchase, usually within three months). Since the liberalization in 1979 up to the end of 1981, although short term in nature, those transactions had been classified as long-term capital movements.

[b]Actual rate.

Table 9.5 **Deviations from Covered Interest Parity, September 1982 to October 1985, in Percentage Points (local interest rate–London Eurodollar interest rate–London forward discount) three-month maturity**

Country	Mean Error	S.D.	Sample S.D.	Root Mean Squared Error	95% Bound
United Kingdom	−.02	.05	.27	.27	.45
West Germany	.50[a]	.03	.20	.54	.84
Netherlands	.25[a]	.02	.13	.28	.50
Canada	−.13[a]	.02	.13	.28	.50
Switzerland	−.06	.05	.73	.73	1.47
Group 1	−.13	.10	.33	.74	
Malaysia	−1.53[a]	.15	.89	1.77	3.39
Hong Kong	.18[b]	.07	.43	.47	1.01
Singapore	−.47[a]	.08	.50	.68	1.21
Group 2	−.60[a]	.13	.61	1.12	
Mexico	−17,89[a]	2.00	12.02	21.55	37.83
South Africa	−1.32[a]	.14	.08	1.55	3.09
Greece	−9.39[a]	1.17	7.03	11.73	20.45
Saudi Arabia	−2.21[a]	.20	1.20	2.52	4.23
Group 3	−7.81[a]	1.44	5.27	12.44	
France	−2.14[a]	.51	3.06	3.73	7.93
Italy	.56	.60	3.58	3.62	6.21
Belgium	.32	.19	1.12	1.17	2.11
Austria	−1.80[a]	.30	1.81	2.56	4.52
Denmark	−4.12[a]	.27	1.62	4.42	7.18
Ireland	−.11	.08	.48	.49	.74
Norway	−.65[a]	.08	.46	.80	1.42
Sweden	−.81[a]	.22	1.30	1.53	3.06
Spain	−3.71[a]	.67	4.03	5.47	11.79
Group 4	−1.38[a]	.31	1.94	2.64	
Japan	−1.78[a]	.16	.93	2.01	2.65
Australia	−.79	.41	2.47	2.59	3.59
New Zealand	−1.90[a]	.53	3.15	3.68	6.27
Group 5	−1.49[a]	.24	2.18	2.84	
Total Sample	−2.13[a]	.32	2.02	5.58	

Source: Barclay's Bank.

[a]Statistically significant at 99 percent level.

[b]Statistically significant at 95 percent level.

rates, might be thought of as another tax. U.S. reserve requirements were one reason for the growth of the Euromarket in the 1960s and 1970s. Banks do not have to hold reserves against their offshore deposits and for that reason are willing to pay a higher interest rate on deposits in the Euromarket than on deposits in the United States. The

differential in three-month interest rates between the Eurocurrency market and the U.S. interbank market exceeded one hundred basis points in 1980, as the second column of table 9.6 indicates.

By the early 1980s, discouraging capital ouflow was no longer a goal for the United States, and authorities were concerned that the U.S. banking industry was losing business to Eurobanks. Beginning December 1981, U.S. banks were allowed to participate in a sort of domestic Euromarket by establishing International Banking Facilities (IBFs), which are simply a separate set of deposit accounts without reserve requirements.[20] There followed a large shift in accounts from overseas offices of U.S. banks to the offices at home, the majority in New York. But the change is to be thought of as a shift in the location at which banking services are provided, rather than as a net capital inflow: both claims and liabilities to foreigners were shifted to U.S. banks.

An important factor in determining international capital flows is withholding taxes. Until recently, the United States and most other major countries withheld income taxes on bond interest paid to foreigners, unless the foreign residents fell under bilateral tax treaties, on the theory that the income might otherwise escape taxation altogether. But in July 1984, the United States abolished its withholding tax.[21] This move was an inducement to foreign investment in the United States. West Germany, France, and Japan have since also found it necessary or desirable to abolish their own withholding taxes, in order to "remain competitive" in the eyes of international investors. Now *most* countries are potential tax havens for residents of other countries.

9.3.4 Default Risk and Other "Political Risk"

A corporation or other borrower that has a possibility of defaulting on its obligations has to pay a correspondingly higher interest rate to compensate lenders for that possibility. For example, the reason investors in the early 1980s were willing to hold deposits in U.S. banks at lower interest rates than could be earned in the Euromarket, in the absence of controls on capital outflow from the United States, may be that they thought there was a greater risk of default in the Euromarket. The differential between the Eurodollar and domestic deposit rates cannot be explained solely by the difference created by reserve requirements on the side of banks' costs. Figure 9.1 shows that the differential existed even when the U.S. deposit rate is adjusted for reserve requirements.

While U.S. government debt has always been considered close to free of default risk, the 1980s debt crisis has forcefully established the point that governments can default. Indeed, in many Latin American and other financially troubled countries, government debt has turned out to be no more guaranteed than private debt. Even many European

Table 9.6 **Deviations from Closed Interest Parity: Offshore Interest Rate (covered for exchange risk) Minus the U.S. Interest Rate (three-month interest rates in percentage per annum)**

Offshore rate	Euro-$	Euro-$	Euro £ + fd	U.K. ib + fd	U.K. T-Bill + fd	Euro-DM + fd	Ger. ib + fd
U.S. rate	T-Bill	Interbank	Interbank	Interbank	T-Bill	Interbank	Interbank
Means							
1978	1.573	0.564	0.618	−0.840	−0.301	0.738	1.075
1979	1.894	0.786	0.886	0.622	1.656	1.047	1.491
1980	2.581	1.016	1.145	0.989	2.070	1.384	1.931
1981	2.190	0.923	1.080	1.085	2.105	1.242	1.778
1982	2.091	0.900	1.074	1.082	2.066	1.208	1.640
1983	0.660	0.546	0.676	0.691	0.577	0.786	1.127
1984	0.878	0.408	0.566	0.558	0.583	0.709	1.008
1985	0.571	0.295	0.414	0.410	0.305	0.396	0.622
Standard Deviations							
1978	0.666	0.262	0.390	0.846	0.975	0.477	0.484
1979	0.690	0.272	0.376	0.498	0.751	0.410	0.549
1980	1.027	0.371	0.785	0.795	1.233	0.526	0.565
1981	0.578	0.280	0.353	0.316	0.742	0.344	0.455
1982	0.736	0.205	0.242	0.223	0.746	0.308	0.357
1983	0.156	0.116	0.201	0.222	0.282	0.140	0.186
1984	0.401	0.078	0.143	0.134	0.418	0.194	0.234
1985	0.176	0.109	0.301	0.275	0.498	0.552	0.555

Notes: ib ≡ interbank rate.

fd ≡ adjustment for the forward exchange discount.

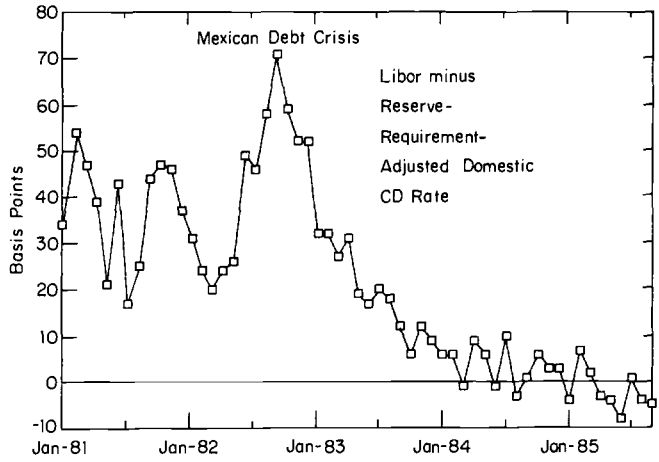

Fig. 9.1 Deviations from closed interest parity offshore less domestic. *Source:* Federal Reserve Board.

governments have to pay a default risk premium over U.S. government debt, as shown in figure 9.2b below.

One cannot look at interest rates on new bank lending to the troubled debtors after 1982 for a measure of the perceived probability of default. The banks that have large loans already outstanding, knowing that the likely alternative is default on the earlier debt, have "involuntarily" had to put in new money in rescheduling agreements. The new loans have been made at interest rates that—though maintaining positive fig-leaf spreads over LIBOR (London Interbank Offered Rate)—are far lower than would compensate them for the true risk. But one can estimate the perceived default risk from the discount at which loans trade on the secondary market. As of December 1986, bank loans were trading at a discount of 32.9 percent for a weighted average of 15 problem debtors, as reported in table 3.17 (Dornbusch) in this volume. There is also a secondary market in bonds issued by some of these countries. Before August 1982, when the Mexican debt crisis first surfaced, the rate of return on Mexican or Brazilian bonds was below that on World Bank bonds. The prices of the bonds fell to a discount thereafter, so their rate of return rose above that on World Bank bonds. The difference, which should be interpreted as a default risk premium, peaked at 8.14 percent in April 1983 for Mexican bonds and 6.71 percent in January 1985 for Brazilian bonds (Folkerts-Landau 1985; Edwards 1986) (see table 9.7).

Many analysts believe that the perceived increased risk of default in Latin America and elsewhere in the world after August 1982 caused a large flow of capital to the United States, which was considered a safe

Table 9.7 **Default Risk Premiums on Foreign Bonds, 1981–85 (U.S. dollars)**

	Returns on Foreign Bonds[a]			Difference in Rates of Return[a]	
	World Bank (1)	Mexico (2)	Brazil (3)	(2) − (1)	(3) − (1)
1981					
July	14.99	13.66	14.63	−1.33	−0.36
August	15.33	13.71	14.69	−1.62	−0.64
September	16.42	13.18	15.07	−3.24	−1.35
October	16.89	14.15	15.13	−2.74	−1.76
November	16.46	14.21	15.20	−2.25	−1.26
December	14.03	14.30	13.90	0.27	−0.13
1982					
January	15.36	13.29	13.84	−2.07	−1.52
February	15.63	13.33	13.88	−2.31	−1.76
March	14.98	13.41	13.96	−1.57	−1.02
April	14.96	13.51	14.03	−1.45	−0.93
May	14.56	13.55	14.09	−1.01	−0.47
June	15.22	13.62	14.17	−1.60	−1.05
July	15.11	13.69	14.24	−1.42	−0.87
August	14.11	15.86	15.19	1.75	1.08
September	13.30	17.15	15.59	3.85	2.29
October	11.93	18.05	15.24	6.12	3.31
November	11.28	18.43	14.47	7.15	3.19
December	11.26	18.36	12.94	7.10	1.68
1983					
January	10.79	18.43	13.72	7.64	2.93
February	10.79	18.59	13.79	7.80	3.00
March	10.58	18.71	13.87	8.13	3.29
April	10.49	18.63	13.58	8.14	3.09
May	10.31	16.93	13.41	6.62	3.10
June	10.65	17.05	13.59	6.40	2.94
July	11.10	17.17	13.96	6.07	2.86
August	11.88	17.05	14.32	5.17	2.44
September	11.47	17.12	14.42	5.65	2.95
October	11.22	16.77	14.73	5.55	3.51
November	11.40	15.77	14.72	4.37	3.32
December	11.55	13.21	14.73	1.66	3.18
1984					
January	11.44	13.27	14.71	1.83	3.27
February	11.34	13.32	14.54	1.98	3.20
March	11.56	12.51	13.88	0.95	2.32
April	11.55	12.56	13.86	1.01	2.31
May	11.97	12.43	13.96	0.46	1.99
June	12.33	12.77	14.09	0.44	1.76
July	13.54	13.34	16.13	−0.20	2.50
August	13.61	13.71	15.84	0.10	2.23
September	13.03	13.88	16.02	0.85	2.99
October	12.78	13.85	16.40	1.07	3.62

Table 9.7 (continued)

	Returns on Foreign Bonds[a]			Difference in Rates of Return[a]	
	World Bank (1)	Mexico (2)	Brazil (3)	(2) − (1)	(3) − (1)
1985					
November	12.71	14.00	16.58	1.29	3.87
December	11.93	13.92	16.84	1.99	4.91
	11.02	13.28	16.85	2.26	5.83
1985					
January	10.31	12.56	17.02	2.25	6.71
February	10.07	12.42	12.73	2.35	2.56
March	11.09	12.26	12.73	1.17	1.64

Source: International Herald Tribune, various issues, in Folkerts-Landau 1985.

Note: The bonds are medium-term seasoned bonds, January 1982–March I 1984.

[a]Call provisions on the World Bank bonds raise rates of return on these relative Mexican or Brazilian bonds of same risk and maturity. Hence, the changes over time of the differences in the rates of return are of interest.

[b]For the World Bank 10.25, June 1987; for Mexico 8.5, March 1987; for Brazil 8.25, December 1987.

haven, and that this was responsible for the large appreciation of the dollar. That there was massive unrecorded "capital flight" out of Latin America is clear. Comparisons of the current account deficits of countries such as Mexico, Venezuela, and Argentina with the bank debt incurred suggest that there must have been a large increase in unrecorded overseas claims by citizens of those countries. It is less clear that this explains why the demand for U.S. assets should have been increasing over the entire period 1981–85, particularly relative to European or Japanese assets, as would be necessary if it were to explain the appreciation of the dollar. If there was a shift during this period into U.S. assets based on increased perceptions of safety in the United States, relative to assets held in Europe, then one would expect interest rates on U.S. assets to decline relative to comparable dollar assets in Europe. This did not happen in short-term interest rates. Figure 9.1 shows that the Eurodollar rate actually fell relative to the domestic U.S. deposit rate after August 1982. Table 9.6 shows that the offshore-onshore differential also fell by other measures between 1980–82 and 1983–85. The domestic interest rate can be measured by the U.S. Treasury bill rate instead of by the interbank rate (first column), and the offshore rate can be measured in pounds or marks, covered on the forward exchange market, instead of by the Eurodollar rate (last five columns). In every case, the short-term interest differential moves in the opposite direction from what the safe haven hypothesis would pre-

dict. (In section 9.5, we consider analogous long-term interest differentials.)

There are other kinds of risk, besides the risk of outright default, that can discourage investors from holding a country's assets. Even if the country does not currently have taxes on interest payments abroad, or on the repatriation of profits, and does not have controls on the removal of principal, there is always the possibility that it will enact such policies in the future. This is particularly relevant for countries that have had capital controls in the past. In the case of direct investment in less developed countries, there is the possibility of nationalization of the industry. This is one of the reasons why investment in these countries prior to 1982 usually took the form of bank lending rather than direct investment. All these forms of "political risk" are less applicable to assets held in the United States than elsewhere, consistent with the view of the country as a safe haven for capital. On the other hand, U.S. authorities have in recent years been ready to freeze assets of unfriendly states Iran and Libya; Soviet fears along these lines thirty years ago may have been behind their decision to hold dollars in London banks—the genesis of the Euromarket.[22]

9.3.5 Exchange Risk

Because of the risk of changes in the exchange rate, assets denominated in dollars are viewed by investors as different from assets denominated in other currencies. This is true even in the absence of transactions costs, capital controls, taxes, political risk, or other barriers to the movement of capital across national boundaries.

There are many ways residents of one country can increase their net investment position in another country without increasing their exposure in its currency. In the first place, even if all assets were denominated in the currency of the country where issued, U.S. residents could, for example, increase their net investment position abroad by buying back previously issued dollar bonds. A net capital outflow can be either an increase in foreign assets or a decrease in liabilities, as the high gross flow numbers in table 9.1 or 9.9 illustrate.

In the second place, an investor can acquire claims on foreigners without the claims being denominated in foreign currency, and can acquire assets denominated in foreign currency without their being claims on foreigners. Many smaller countries issue bonds denominated in dollars, rather than in their own currencies, so that they will be more acceptable to international investors.[23] The majority of bank lending to less developed countries has been denominated in dollars, and the rest in the currencies of other major industrialized countries, not that of the borrower. Even the United States government issued "Carter

bonds" denominated in marks in 1978–79. Corporations increasingly borrow abroad in foreign currency, either as a foreign bond issue or in the Euromarket.

At the shorter end of the maturity spectrum, there have been active forward exchange markets for some time; borrowers are able to hedge foreign currency liabilities by buying exchange forward, and lenders to hedge foreign currency assets by selling exchange forward. At the longer end of the maturity spectrum, the rapid growth of currency swaps in the 1980s allows U.S. corporations to issue Euroyen or Euromark bonds to Japanese, Germans, or anyone else wishing to hold these currencies, and then to swap the proceeds into dollars. Finally on the list of ways that currency of denomination can be divorced from the location of the asset, the prices of equities and direct investment are not fixed in any currency, either domestic or foreign (though the dollar price of foreign equities does often seem to move one for one with the exchange rate).

While these ways exist for an investor to buy a foreign asset without taking a position in foreign currency, not all investors should wish to avoid taking such a position. Unless an investor is indifferent to risk, or is certain what the future exchange rate will be, or is tied to his own currency by accounting practices, he should wish to diversify his holdings among dollars, marks, yen, pounds, francs, and so forth so as to reduce the variability in the value of his overall portfolio. It is easy for an investor, particularly an American, to slip into the habit of viewing his own currency as safe and others as risky. This view would assign exchange risk a purely negative role, a cost to be weighed against other factors like expected return in the decision to buy foreign currencies. But the value of domestic currency is not completely safe, even for an American. A firm that imports raw materials, intermediate inputs, or other goods from abroad is vulnerable to an increase in costs from a depreciation of the domestic currency; such a firm would be wise to take an "open" position in foreign currency, that is, to hold some foreign assets or to buy some foreign exchange on the forward market. (The word "open" is in quotations because in this case the firm is reducing overall exposure to currency risk, not increasing it except in the most narrow of accounting senses.) Households also consume some imported goods and thus are partially vulnerable to a depreciation, though there is generally a lag before the depreciation is passed through to retail prices. Furthermore, the possibility of inflation in prices of domestically produced goods, whether associated with a change in the exchange rate or not, provides another reason why the domestic currency should not be viewed as perfectly safe. The point is that even a highly risk-averse American might want to hold some foreign currency assets.

To citizens of smaller, more open, countries, this point is more important. In countries with a past history of hyperinflation, particularly in central Europe and Latin America, the desirability of holding some foreign currency is well understood even by relatively unsophisticated citizens. The role of "asset least likely to lose purchasing power" has been played by various currencies at various times. In the 1970s, marks and Swiss francs, in addition to gold, were popular. But in the 1980s, the U.S. dollar is the currency of choice, in large part due to the firm antiinflation policy of the Federal Reserve Board under Chairman Paul Volcker. In countries that are highly unstable monetarily, residents are willing to give up interest earnings on securities to hold dollars in the form of currency. Dollars are known to circulate freely in such countries as Argentina and Israel. There are no data on foreign holdings of U.S. currency, but Cooper (1986, 7) conjectures that over $20 billion of the roughly $169 billion in dollar currency in circulation at the end of 1984 was held abroad.

Because exchange rates have become more variable since 1973, and even since 1980, the typical international investor should be more diversified among currencies than in the past. Despite this, and despite the low level of transactions costs and capital controls among major industrialized countries, residents everywhere appear to hold far less foreign assets, and far more of their own country's assets, than would be present in a theoretically well-diversified portfolio. For example, table 9.8 suggests that most U.S. assets are still held by U.S. residents. Similarly, most Japanese assets are still held by Japanese residents, and so forth. But investors everywhere are increasing their level of diversification, which explains why U.S. residents are increasing their gross claims on foreigners even at a time when capital is *on net* flowing into the United States (table 9.9). This process can be expected to continue for many years.

9.4 U.S. Capital Inflows in the 1980s

The 1980s have witnessed a historic swing in the U.S. capital account. In 1980, U.S. residents were on net investing overseas, as they had for many decades, at a rate estimated in the last line of table 9.9 at $10.4 billion a year. By 1982, U.S. residents appear to have been on net *borrowing* from abroad, at a rate of $10.5 billion a year. The estimated rate of net borrowing rose very rapidly, to $41.8 billion in 1983 and $106.5 billion in 1984, until it reached an apparent plateau in 1985 of $122.9 billion.[24] During this same period, the dollar appreciated sharply.

The balance of payments statistics in table 9.9 give some (limited) insight into the composition of the net capital inflow. The inflow has primarily taken the form of foreigners increasing their holdings of U.S.

Table 9.8 **Foreign Holdings of U.S. Financial Assets, 1962–85**

	Amount at Year End (billions of dollars)	Total U.S. Market[a] (billions of dollars)	Percentage
1962	45.4	1,457.8	3.1
1970	99.0	2,600.0	3.8
1975	183.4	3,507.9	5.2
1980	399.6	6,256.0	6.3
1981	419.7	6,628.0	6.3
1982	414.8	7,250.5	5.7
1983	502.4	8,219.2	6.1
1984	620.8	9,055.6	6.9
1985	788.4	10,663.4	7.4

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Financial Assets and Liabilities,* September 1986, pp. 1–2, 15–16.

[a]Total credit market debt owed by nonfinancial sectors plus security credit, trade credit, mutual fund shares, and other corporate equities.

assets. U.S. residents have not noticeably cashed in their holdings of foreign assets. In fact, U.S. residents have continued to increase their investments abroad.

9.4.1 U.S. Assets Abroad

Some have argued that the sharp fall in the recorded rate of U.S. acquisition of foreign assets, from $110.2 billion in 1982 to $15.0 billion in 1984 and $25.8 billion in 1985, means that actions by U.S. residents are dominating the net capital inflow, not actions by foreign residents.[25] But there are several things to be said against this argument. First, the recorded *stock* of U.S. assets abroad continues to rise; it is only the rate of change that has declined. Second, part of the apparent fall in U.S. investment abroad is an apparent fall in foreign direct investment between 1980 and 1982–84 (line 5 in table 9.9; the recorded figure for 1982 even shows a net decrease in the U.S. foreign direct investment position). But this fall in recorded direct investment is in part due to the problem of U.S. corporations obtaining funds via subsidiaries in the Netherlands Antilles. When these credit items are moved from the direct investment numbers to foreign purchases of U.S. corporate securities where they belong, foreign direct investment shows less of a decline in the early 1980s.[26]

In the third place, and quantitatively much more important, the reported slowdown in the period 1983–85 in U.S. banks' acquisition of claims on foreigners (line 8 in table 9.9) relative to 1981–82 can be traced to exaggeration of the 1981–82 figures by the establishment of IBFs (international banking facilities) in the United States beginning

Table 9.9 **Capital Flows in the Balance of Payments, 1980–85 (billions of dollars)**

	1980	1981	1982	1983	1984	1985
(1) U.S. assets abroad, net (increase/capital outflow [−])	−86.1	−111.0	−121.3	−50.0	−23.6	−32.4
(2) U.S. official reserve assets	−8.2	−5.2	−5.0	−1.2	−3.1	−3.9
(3) Other U.S. government assets	−5.2	−5.1	−6.1	−5.0	−5.5	−2.8
(4) U.S. private assets abroad	−72.8	−100.8	−110.2	−43.8	−15.0	−25.8
(5) Direct investment	−19.2	−9.6	2.4	−0.4	−3.9	−18.8
(5a) of which Netherlands Antilles capital (decrease/inflow [+])	2.7	3.5	8.7	3.1	1.7	−3.0
(6) Foreign securities	−3.6	−5.8	−8.1	−7.0	−5.1	−8.0
(7) Other claims reported by U.S. nonbanks	−3.2	−1.2	−6.6	−6.5	−5.1	−1.7
(8) Other claims reported by U.S. banks	−46.8	−84.2	−111.1	−29.9	−11.1	−0.7
(9) Foreign assets in the U.S. net (increase/capital inflow [+])	58.1	83.3	94.1	85.5	102.8	127.1
(10) Foreign official assets in the U.S.	15.5	5.0	3.6	6.0	3.0	−1.3
(11) Other foreign assets in the U.S.	42.6	78.4	90.5	79.5	99.7	128.4
(12) Direct investment	16.9	25.2	13.8	11.9	25.4	17.9
(13) U.S. Treasury securities	2.6	2.9	7.1	8.7	23.1	20.5

(14) Other U.S. securities	5.5	7.2	6.4	8.6	12.8	50.9
(15) Other liabilities reported by U.S. nonbanks	6.9	0.9	−2.4	−0.1	4.7	−1.2
(16) Other liabilities reported by U.S. banks	10.07	42.1	65.5	50.3	33.8	40.4
(17) Current account balance	1.9	6.3	−9.1	−46.6	−106.5	−117.7
(18) Recorded nonofficial capital account balance (3) + (4) + (1)	−35.4	−27.5	−25.8	30.7	79.2	99.8
(19) Adjusted direct investment balance (5) + (12) − (5a)	5.0	12.1	7.5	8.4	19.8	2.1
(20) Adjusted securities balance (6) + (13) + (14) + (5a)	7.2	7.8	14.1	13.4	32.5	60.4
(21) Other claims and liabilities (3) + (7) + (8) + (15) + (16)	−37.6	−47.5	47.4	8.8	26.9	37.4
(22) Official reserves (2) + (10)	8.5	0.9	1.4	4.8	−0.1	−5.2
(23) New SDR allocations	1.2	1.1	—	—	—	—
(24) Statistical discrepancy −[(17) + (18) + (22) + (23)]	25.0	20.3	36.3	11.1	27.3	23.0
(25) Estimated private capital account balance (18) + (24)[a]	−10.4	−7.2	10.5	41.8	106.5	122.8

Sources: Survey of Current Business, June 1986, table 1; for 5a. 1980–81, *Survey of Current business*, June 1983, table D; 1982, (revised) Department of Commerce; 1983–85, *Survey of Current Business*, June 1986, table D.

[a]Assumes statistical discrepancy is entirely unrecorded capital inflows.

in December 1981. About $44 billion of IBF liabilities to foreigners originated in 1981, and $72 billion in 1982. Since these increased liabilities were matched by increased claims when the accounts were moved from overseas, the acquisition of foreign assets reported by U.S. banks is estimated to have been exaggerated by these amounts.[27] Thus, the decline in acquisition of foreign assets in the subsequent years is exaggerated similarly. More generally in the case of bank-reported flows, the statistics need say nothing about the residence of investors on whose behalf the banks are reporting. In the case of interbank transactions, the distinction between increases in liabilities and decreases in claims is particularly lacking in economic significance.

9.4.2 Foreign Direct Investment in the United States

The side of the balance sheet covering foreign investments in the United States is perhaps the more interesting, as the country is becoming increasingly dependent on the willingness of foreigners to continue to increase their lending. From lines 11 to 16 in table 9.9, foreign acquisition of U.S. assets during 1983–85 consisted of 18 percent direct investment, 17 percent purchases of U.S. Treasury securities, 24 percent purchases of other securities, 1 percent other U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns, and 40 percent U.S. liabilities reported by U.S. banks not included elsewhere.

Table 9.10 shows the foreign direct investment position in the United States at the end of 1985. The investment is mostly in the hands of Europeans: 66 percent. Nine percent is held by Canada, 10 percent by Japan, 9 percent by Latin America, and only 5 percent by the Middle East and all others. The largest category is in manufacturing (33 percent), followed by trade (18 percent), petroleum (15 percent), real estate (10 percent), banking (6 percent), insurance (6 percent), other finance (3 percent), and other industries (8 percent).

A highly publicized component of foreign direct investment in the United States is the purchase or construction of factories by foreign manufacturers to avoid current or threatened U.S. restrictions against imports, most notably in the Japanese automobile industry. Japanese direct investment is indeed increasing rapidly: $3.1 billion in 1985 on U.S. figures, or $5.4 billion on Japanese accounting. But it is still relatively small, and it is concentrated in trade and in financial services. The Japanese figures show that 68 percent of the (cumulative) direct investment in North America is in nonmanufacturing industries and only 29 percent in manufacturing industries (5 percent in transportation machinery and 8 percent in electrical machinery).[28] This is in contrast to U.S. direct investment in other countries which as of end-1985 was 41 percent in manufacturing, 25 percent in petroleum, and only 16

Table 9.10 **Foreign Direct Investment Position in the United States at Year End (millions of dollars)**

	1984								
	All Industries	Petroleum	Manufacturing	Trade	Banking	Finance, Except Banking	Insurance	Real Estate	Other Industries
All countries	164,583	25,400	51,802	31,219	10,326	5,633	8,922	17,761	13,519
Canada	15,286	1,544	4,115	1,734	1,219	608	1,418	2,844	1,804
Europe	108,211	23,142	39,083	16,934	5,740	3,457	6,748	8,255	4,850
European Communities (10)	96,555	22,813	32,990	15,238	5,335	2,879	5,424	7,714	4,163
Belgium	2,548	(d)	471	296	(d)	(d)	(d)	10	(d)
France	6,591	(d)	5,368	728	420	−623	91	66	(d)
Germany	12,300	71	4,389	4,256	272	335	1,295	966	745
Italy	1,438	(d)	333	(d)	298	(d)	(d)	(d)	8
Luxembourg	753	(d)	74	(d)	(d)	121	0	(d)	8
Netherlands	33,728	9,981	12,497	2,787	1,427	1,970	1,445	2,471	1,152
United Kingdom	38,387	10,991	9,719	6,732	2,194	743	2,548	4,135	1,325
Denmark, Greece, and Ireland	779	(d)	139	216	214	2	(d)	42	50
Other Europe	11,655	329	6,093	1,696	405	579	1,325	541	688
Sweden	2,258	307	1,048	650	(d)	(d)	119	0	(d)
Switzerland	8,146	19	4,774	794	(d)	536	1,152	393	(d)
Other	1,251	3	271	252	271	(d)	54	148	(d)
Japan	16,044	−88	2,460	9,941	1,853	513	138	744	482
Australia, New Zealand, and South Africa	2,152	57	362	(d)	51	(d)	(d)	120	(d)
Latin America	16,201	656	5,537	2,027	665	861	580	4,664	1,212
South and Central America	2,859	50	981	44	(d)	115	(d)	372	186
Panama	1,924	45	959	14	(d)	108	(d)	256	6
Other	935	5	22	30	574	7	(d)	116	181

Table 9.10 (continued)

	1984								
	All Industries	Petroleum	Manufacturing	Trade	Banking	Finance, Except Banking	Insurance	Real Estate	Other Industries
All countries	164,583	25,400	51,802	31,219	10,326	5,633	8,922	17,761	13,519
Other Western Hemisphere	13,343	606	4,555	1,983	(d)	746	(d)	4,292	1,025
Bermuda	1,370	110	306	363	0	7	(d)	151	(d)
Netherlands Antilles	10,935	452	4,092	1,394	(d)	643	(d)	3,715	543
United Kingdom Islands, Caribbean	866	(d)	140	186	16	109	(d)	369	10
Other	172	(d)	18	40	0	−13	0	57	(d)
Middle East	5,336	15	116	(d)	481	(d)	0	709	(d)
Israel	525	6	97	(d)	319	(d)	0	0	−6
Other	4,811	9	20	(d)	162	9	0	709	(d)
Other Africa, Asia, and Pacific	1,353	75	128	291	318	28	(d)	423	(d)
Memorandum,–OPEC[1]	4,892	12	−21	(d)	268	9	0	707	(d)
	1985								
	182,951	28,123	60,798	34,212	11,503	4,708	11,069	18,557	13,982
	16,678	1,659	5,130	2,143	1,332	513	1,337	2,580	1,985
	120,906	25,437	46,515	17,611	5,963	2,387	8,921	8,821	5,251
	106,004	25,114	37,553	15,738	5,616	1,681	7,497	8,238	4,566
	2,288	(d)	477	340	(d)	(d)	(d)	9	(d)
	6,295	(d)	5,485	581	483	−917	92	26	(d)
	14,417	(d)	6,198	4,726	222	(d)	1,656	1,049	697
	1,401	(d)	273	(d)	300	25	(d)	(d)	(d)
	584	(d)	86	(d)	(d)	129	0	24	22
	36,124	11,135	12,986	2,544	1,570	2,088	1,975	2,325	1,321

43,766	12,246	11,844	6,847	2,539	262	3,727	4,623	1,638
1,129	(d)	165	404	199	, 3	(d)	(d)	52
14,902	323	8,961	1,873	347	705	1,424	583	685
2,384	296	1,132	790	3	−46	(d)	0	(d)
11,040	(d)	7,431	778	88	627	1,232	444	(d)
1,478	(d)	398	305	255	125	(d)	139	(d)
19,116	31	2,621	11,822	2,176	710	122	054	582
2,702	101	747	(d)	63	−19	(d)	117	(d)
17,050	608	5,558	2,099	1,122	917	662	4,808	1,276
3,385	112	803	190	1,041	132	(d)	307	(d)
2,137	104	842	113	(d)	123	(d)	199	1
1,248	8	−39	78	(d)	8	4	108	(d)
13,665	496	4,755	1,909	80	785	(d)	4,501	(d)
1,903	97	955	(d)	(*)	5	(d)	110	(d)
10,603	406	3,717	1,364	66	480	24	3,945	602
983	(d)	63	190	14	288	(d)	399	(d)
177	(d)	19	(d)	(*)	12	0	47	(d)
4,961	(d)	58	(d)	521	186	0	746	(d)
505	(d)	54	(d)	334	(d)	0	1	4
4,455	(d)	3	(d)	188	(d)	0	745	(d)
1,538	(d)	171	231	327	16	(d)	430	(d)
4,560	19	−36	(d)	188	2	0	737	(0)

Source: Survey of Current Business.

*Less than $500,000(+).

(d)Suppressed to avoid disclosure of data of individual companies.

percent in banking, finance, and insurance. (U.S direct investment in Japan is 51 percent in manufacturing, 24 percent in petroleum, and only 8 percent in banking, finance, and insurance.)[29] Japanese direct investment in manufacturing in the United States may be important for redirecting trade flows, or for any transfer of managerial practices that may be taking place, but it is not a quantitatively substantial part of the capital inflow into the United States.[30]

9.4.3 Securities Sales versus Banking Flows

In the past, banking transactions have generally been the largest component of the capital account. But in 1984, foreign purchases of U.S. securities passed bank-reported liabilities as the largest component of the capital inflow, either on a gross or net basis.

This trend, which accelerated in 1985, partly reflects the securitization of international capital markets: the rapidly growing role of direct investor purchases of bonds and equities, at the expense of bank intermediation. Some of the reasons suggested for the decline in banking's share are deregulation and innovation in securities markets, concern over bank exposure to developing countries, the pressure on banks to increase their capital-asset ratio, and concern over the Continental Illinois Bank crisis in 1984.[31] A rapidly growing component of the increased purchases of securities by foreigners consists of issues of Eurobonds by U.S. corporations: $38 billion in 1985 as compared to $7 billion in 1983.[32] Purchases of all non-Treasury U.S. securities reached $50.9 billion in 1985, over nine times higher than the level of five years earlier.

Another large chunk is increased purchases of U.S. government bonds. In 1984 the U.S. Treasury began a new effort to tap foreign savings and help finance the enormous federal budget deficit by issuing "foreign-targeted registered obligations" directly into the Eurobond market. Foreign purchases of all Treasury securities reached $20.5 billion in 1985, almost eight times higher than the level of five years earlier. A remarkable 83 percent of the foreign purchases were by Japanese residents.[33] This reflects the magnitude of the capital inflow from Japan and the relative preference of Japanese investors for U.S. bonds rather than equities. In 1986, however, foreign purchases of U.S. equities picked up sharply, surpassing purchases of U.S. Treasury securities as a component of the capital inflow.

9.4.4 Official Reserve Holdings of Dollars

Until 1973, the holdings of international reserves by central banks were thought of as endogenous, as accommodating the decisions of private residents regarding either investment or current account transactions. With the end of the Bretton Woods system, the obligation for the major central banks to intervene in the foreign exchange market

ended. Most continued to intervene as it suited them, the European and Japanese central banks much more so than the U.S. authorities. For example, their purchases of dollars to try to dampen the dollar depreciation of 1977–78 were several times greater than the record U.S. current account deficits. One could think of the major central banks during this period playing to an extent the same role they did under the Bretton Woods system: financing U.S. current account (and private capital account) imbalances.

In the early 1980s, as the dollar swung from a level perceived as too low to a level perceived as too high, the European and Japanese central banks reversed the direction of their intervention, now selling dollars to dampen the depreciation of their own currencies. But even in 1985, when the U.S Treasury under Secretary James Baker abandoned its previous policy of benign neglect and spearheaded a new cooperative effort to get the dollar down, the quantity of intervention was relatively small. Reported U.S. liabilities to official institutions in Western Europe fell by only $7.3 billion between the end of 1980 and the end of 1985.[34] Dollar holdings by most smaller central banks increased steadily over this period (except in 1985): they either were unconcerned about the strength of the dollar or viewed themselves as too small to affect it, and were more interested in the high rates of return they could earn on dollar securities. The result was the positive numbers in line 10 of table 9.9.

The U.S. statistics probably underestimate the dollar holdings of central banks, those in developing countries in particular, because they do not count Eurodollar holdings. Statistics on reserve holdings reported by the central banks themselves show greater increases in quantity terms in 1983–85.[35] It is as if central banks in the aggregate acted like "destabilizing speculators," rather than "leaning into the wind" to resist swings in the dollar.[36] The tendency for central banks to shift their portfolios in the same direction that currency values are already moving is necessarily even stronger when reserves are reported in value terms. As table 9.11 shows, the share of official reserve portfolios allocated to dollars declined rapidly from 1977 to 1980, and then rose from 1980 to 1984, like the value of the dollar itself. Perhaps central banks should be lumped together with other foreign residents in their portfolio behavior.[37]

At the Plaza Accord of September 22, 1985, the five largest central banks agreed to coordinated intervention in order to bring down the dollar. Subsequently, when foreign central banks became convinced that the dollar depreciation threatened to go too far (e.g., at the Louvre Meeting of February 22, 1987), they switched back to purchasing dollars. The magnitude of the intervention in 1986–87 was large. In 1987:I, foreign official purchases of U.S. assets even exceeded private purchases as a component of the capital inflow.

Table 9.11 **Share of National Currencies in Total Identified Official Holdings of Foreign Exchange, End of Year 1977–85 (percentage)**

	1977	1978	1979	1980	1981	1982	1983	1984	1985	Memorandum: ECUs Treated Separately[a]
All countries										
U.S. dollar	80.03	78.2	75.2	69.0	73.1	71.7	72.2	70.5	65.1	56.4
Pound sterling	1.8	1.8	2.1	3.1	2.2	2.5	2.7	3.1	3.2	2.9
Deutsche mark	9.3	11.2	12.8	15.6	13.4	12.9	12.0	12.8	15.5	14.2
French franc	1.3	1.2	1.4	1.8	1.4	1.3	1.1	1.1	1.2	1.1
Swiss franc	2.3	2.2	2.6	3.3	2.8	2.8	2.4	2.1	2.4	2.2
Netherlands guilder	0.9	0.9	1.1	1.4	1.2	1.2	0.9	0.8	1.0	1.0
Japanese yen	2.5	3.4	3.7	4.5	4.3	4.7	5.0	5.7	7.6	7.0
Unspecified currencies[b]	1.6	1.1	1.2	1.4	1.4	2.8	3.5	3.8	3.9	15.2
Industrial countries										
U.S. dollar	89.4	86.4	83.4	77.6	78.7	76.7	76.0	71.6	63.2	48.9
Pound sterling	0.9	0.7	0.8	0.8	0.7	0.8	0.9	1.6	2.0	1.7
Deutsche mark	5.5	7.9	9.7	14.4	13.1	12.5	12.9	14.7	19.2	16.4
French franc	0.3	0.4	0.6	0.5	0.5	0.4	0.3	0.4	0.5	0.4
Swiss franc	0.8	1.2	1.5	1.8	1.8	1.8	1.8	1.4	1.8	1.5
Netherlands guilder	0.6	0.5	0.6	0.7	0.8	0.7	0.5	0.6	1.0	0.9
Japanese yen	1.8	2.3	2.6	3.5	3.7	4.4	5.1	6.1	8.5	7.3
Unspecified currencies[b]	0.7	0.5	0.7	0.6	0.7	2.8	2.9	3.5	3.9	22.9

Developing countries[c]										
U.S. dollar	70.9	66.6	66.3	60.1	67.1	66.5	68.0	69.2	67.5	67.5
Pound sterling	2.8	3.2	3.4	5.4	3.8	4.4	4.8	4.8	4.7	4.7
Deutsche mark	13.3	15.9	16.2	16.7	13.9	13.3	11.1	10.6	10.9	10.9
French franc	2.3	2.3	2.2	3.1	2.5	2.4	2.0	1.9	2.1	2.1
Swiss franc	3.9	3.6	3.8	4.9	3.9	3.9	3.6	3.0	3.1	3.1
Netherlands guilder	1.2	1.5	1.6	2.0	1.6	1.7	1.3	1.0	1.1	1.1
Japanese yen	3.2	4.9	4.8	5.6	5.0	5.1	4.9	5.3	6.5	6.5
Unspecified currencies[b]	2.5	1.9	1.7	2.2	2.2	2.8	4.2	4.1	4.0	4.0

Source: International Monetary Fund, *Annual Report,* 1986.

Notes: Starting with 1979, the SDR value of European currency units (ECUs) issued against U.S. dollars is added to the SDR value of U.S. dollars, but the SDR value of ECUs issued against gold is excluded from the total distributed here. Only selected countries that provide information about the currency composition of their official holdings of foreign exchange are included in this table.

[a]The column is for comparison and indicates the currency composition of reserves when holdings of ECUs are treated as a separate reserve asset, unlike the earlier columns starting with 1979 as is explained in the preceding note. The share of ECUs in total foreign exchange holdings was 10.9 percent for all countries and 20.2 percent for the industrial countries in 1985.

[b]This residual is equal to the difference between total identified reserves and the sum of the reserves between the seven currencies listed in the table.

[c]The calculations here rely to a greater extent on Fund staff estimates than do those provided for the group of industrial countries.

9.5 Rates of Return

What could cause swings in net capital flows of the magnitude seen in the 1980s? From the standpoint of macroeconomic policy, the most important determinants of capital flows between countries are expected rates of return. U.S. interest rates increased sharply after 1980. Interest rates in other major industrialized countries also increased, but not as much. The differential between the U.S. ten-year interest rate and a weighted average of other countries' ten-year interest rates averaged zero in 1976–80, but rose to about 2 percent by 1982, and rose further to about 3 percent in 1984. This increase in the differential rate of return on U.S. assets is widely considered the most important cause of the net capital inflow that began in the early 1980s. But measuring expected rates of return is not as straightforward as might appear. For equities or direct investment, the rate of return is uncertain, and investors treat such assets as different from bonds so that one cannot use the bond interest rate to measure their expected rate of return. Even for deposits, loans, and bonds, where the nominal interest rate is known in terms of domestic currency, the dollar interest rate on U.S. bonds cannot be directly compared with the mark interest rate on German bonds because of the likelihood of future changes in the mark-dollar exchange rate.

9.5.1 Dollar Bond Rates in the Domestic and Euro Markets

If we are interested in the investor's decision whether to invest in bonds issued in the United States versus bonds issued in other political jurisdictions per se, rather than necessarily dollar bonds versus other currencies, then we can get around the problem of exchange rate uncertainty by comparing U.S interest rates to Eurodollar interest rates. This is the same thing we did in table 9.7 for three-month deposit rates. Figure 9.2 shows four series of long-term dollar interest rates, two on each side of the Atlantic. The dominant impression is that the rates move together, suggesting that capital controls or political risk is relatively unimportant and that arbitrage works relatively well. But there is still some variation in the differential.

Figure 9.2a shows the domestic U.S. versus Eurodollar interest rate on bonds issued by U.S. corporations. In the mid-1970s, the rates were essentially the same. The domestic U.S. interest rates began to rise, especially in 1980 and 1981, providing a strong incentive for capital to flow from the Euromarket into the United States. The Eurobond rate also rose, but not by as much. The differential, represented by the solid line in figure 9.2c, reached 3.3 percent in July 1981. Evidently, the capital inflow was not large enough to arbitrage it away. It is unclear why U.S. corporations did not elect to do even more of their borrowing in the Euromarket at the cheaper rate.[38]

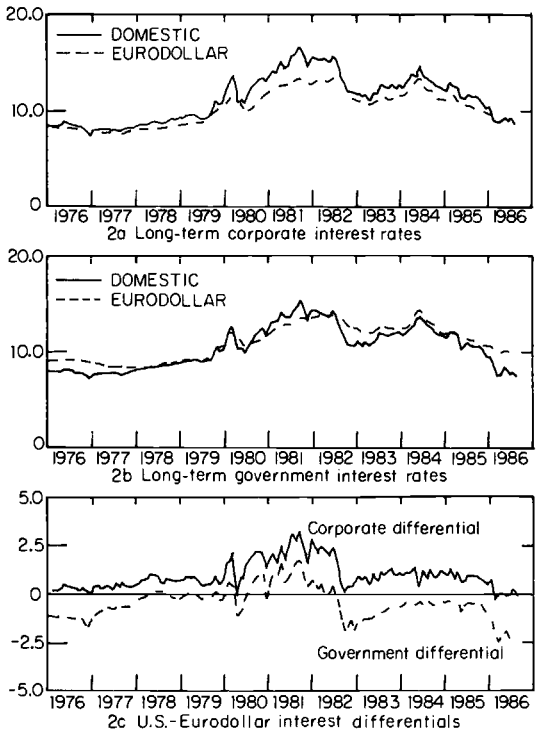

Fig. 9.2 Domestic U.S. and Eurodollar corporate bond rates, government bond rates, and differentials. *Source:* Morgan Guaranty.

Figure 9.2b shows the U.S. and Eurodollar interest rates for government bonds. These Eurodollar bonds are issued by European governments, so the fact that they offered a higher interest rate than the U.S. bonds in the 1970s was presumably compensation for somewhat greater risk of default. But when the U.S. rate rose in 1980–81, the Euromarket rate lagged behind, just as with the corporate bonds; the differential turned positive and reached 1.7 percent in September 1981.

When the U.S. corporate and government interest rates fell in mid-1982, the respective Eurobond rates again lagged behind and the differentials returned to their earlier levels. The drop in the Euro-U.S. long-term differentials in mid-1982 is consistent with the idea that investors sought to shift their portfolios into U.S. assets for "safe haven" reasons associated with the Latin American debt crisis.[39] But the evidence is also consistent with the idea that there was a (short) lag in the time necessary for U.S. borrowers to take full advantage of the lower interest rates in the Euromarket and thus arbitrage away the differential. Swaps, note issuance facilities, and other innovations to facilitate borrowing in the Euromarket were developing at this time.

9.5.2 U.S. versus Nondollar Interest Rates

Figure 9.3a shows the differential between the U.S. long-term government bond rate and a weighted average of six trading partners' long-term government bond rates (solid line).[40] The differential peaked in June 1984 at 3.19 percent, with the differentials against Germany and Japan somewhat higher. It then declined over the subsequent two years, falling below 1.00 percent in 1986, though still 2.0 percent against Germany and 2.8 percent against Japan as of September 1986.

When comparing incentives to invest in U.S.- versus foreign-currency bonds, we must consider exchange rate expectations in addition to interest rates. This is difficult because there are many different views as to how exchange rates move and no way to measure expectations directly. But it is possible to get a rough handle on the exchange rate expectations that investors must have held during this period.

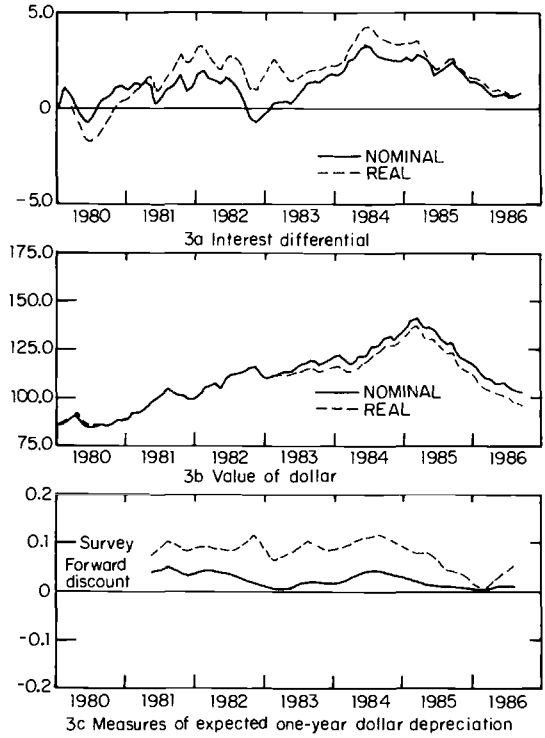

Fig. 9.3 Nominal and real long-term interest rate differentials, nominal and real effective exchange rates, and twelve-month forward discount and twelve-month expected depreciation—U.S. versus trading partners.

There is a historical tendency, albeit very slow and erratic, for the exchange rate eventually to return to a long-run equilibrium in real terms (that is, adjusted for changes in the price level). The large appreciation of the dollar from 1980 to 1984, 35 percent against a weighted average of fifteen trading partners' currencies, was not much offset by higher inflation abroad, and so constituted a similar appreciation in real terms, 32 percent.[41] The result of this loss of competitiveness was the rapidly growing trade deficit, which reached $113 billion in 1984 and $124 billion (on a balance of payments basis) in 1985. It was widely believed at this time that the trade situation was unsustainable, that the dollar was overvalued and would in the future have to depreciate back to levels at which U.S. producers could compete on world markets. Such expectations of future depreciation must have had an effect on investor thinking.

There exist surveys of the forecasts made by participants in the foreign exchange market, and they tend to confirm the idea that the large appreciation of the dollar in the early 1980s generated an anticipation of a future depreciation back to equilibrium. One survey conducted by the *American Express Bank Review* shows that the forecasted depreciation of the dollar one year ahead climbed from approximately zero in the late 1970s (−0.20 on average in 1976–79) to a peak of 8.47 percent in the year 1984. Another survey conducted by *The Economist Financial Report* (beginning only in 1981) shows the forecasted depreciation of the dollar rising to 10.02 per annum in 1984. A third survey, by Money Market Services, Inc., (beginning in 1983) shows three-month-ahead forecasts of dollar depreciations rising to 7.26 percent (per annum) in 1984.[42] It seems unlikely that investors based their portfolio decisions on the full magnitude of the expectation depreciation numbers reported in the surveys; since the expected depreciation numbers were considerably in excess of the interest differential, there would not be much incentive for investors to hold dollar assets. It is likely that investors at each point assigned a significant probability to the possibility that the forecasted fall in the dollar would not materialize in the coming year, as was reasonable given that such forecasts had turned out wrong for four years. In that case the rising interest differential could have been an adequate offset for expected depreciation, providing adequate incentive for investors to continue to increase their holdings of dollar securities in the 1981–84 period.

Given our argument that investors expect deviations from long-run equilibrium such as the 1984 overvaluation of the dollar to be corrected, investors' expectations of future depreciation should have diminished after March 1985 when the dollar depreciation finally took place. In other words, if one thinks, as of the end of 1986, that much of the return to equilibrium has already taken place, then one should think

that less depreciation remains to be accomplished in the future. The survey data confirm this, as can be seen by the dashed line in figure 9.3c. For example, the *Economist* survey showed an expected one-year depreciation of the dollar against the mark of only 4.9 percent as of October 30, 1986, as compared to 9.3 percent on September 5, 1985, just before the Plaza Accord (or 10.7 percent on average between June 1981 and December 1985). The 1985–86 decline in the expected rate of future depreciation explains how foreign residents would have wished to continue increasing their holdings of dollar assets despite the decline in the nominal interest differential shown in figure 9.4a.

A useful alternative way to measure the expected rates of return on different countries' assets is to look at the differential in *real* interest rates, that is, nominal interest rates adjusted for expected inflation.[43] There is no unique way of measuring expected inflation, but the problem is not as difficult as measuring expected exchange rate changes. Alternative possible measures of expected inflation tend to give similar answers.

During the late 1970s, and through 1980, the U.S. real interest rate by the available measures was usually below foreign real interest rates. As figure 9.3a shows, the real interest differential increased in the early 1980s even more than did the nominal interest differential, and peaked in June 1984.[44] Depending on whether expected inflation is measured by a three-year distributed lag on actual inflation, the three-year forecast of Data Resources, or the two-year forecast of the OECD *Economic Outlook,* the average long-term real interest differential rose between 1979–80 and 1983–84 by 4.79 percentage points, 3.88 percentage points, or 3.54 percentage points.[45] This increase in return differentials was a significant inducement to demand for U.S. assets.

9.5.3 U.S. versus Foreign Returns on Equity

To compare countries' rates of return on real capital we can look at the earnings-to-price ratio or dividend-to-price ratio on equity. These numbers are already expressed as real rates of return and need not be corrected for inflation. They are reported for stock markets in Europe, the Far East, and Australia, in addition to the United States, by *Capital International Perspective* of Geneva.[46]

The difference in the rate of return on equity between the United States and abroad is shown in figure 9.4. Like the real interest differentials, the measures of return on equity show a substantial increase from 1980 to 1984, with a dip in-between at 1983. The difference in dividend yields rose from 1.1 in 1980[47] to 2.3 at the first peak in mid-1982, and 2.1 at the second peak in early 1984. The difference in earnings-price ratios followed a similar pattern, but with larger swings, rising from 1.6 on average in 1980 to 5.6 at the first peak in early 1982,

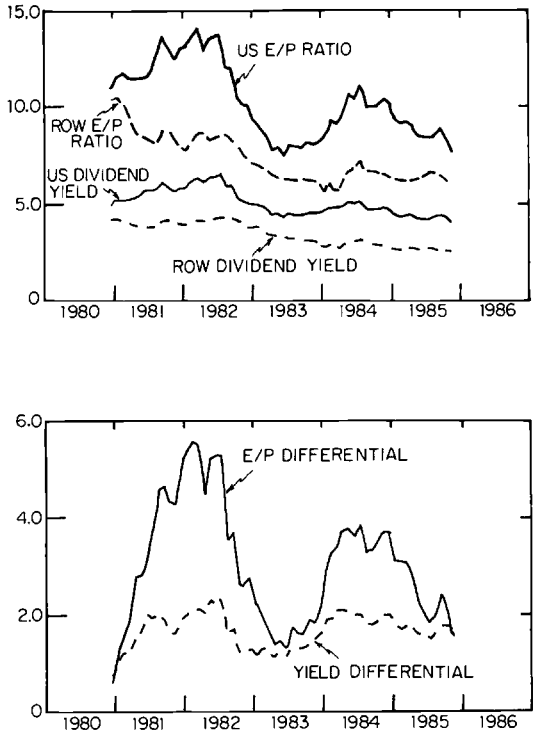

Fig. 9.4 Returns on equity, the United States versus the rest of world (Europe, Far East, and Australia): earnings-price ratios and dividend yields. *Source: Capital International Perspective,* Morgan Stanley.

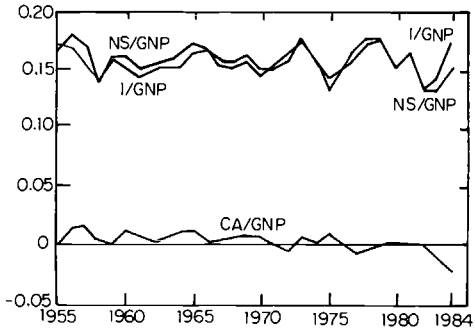

Fig. 9.5 U.S. national saving (NS), investment (I), and current account (CA) as shares of GNP, 1955–84. *Source: Economic Report of the President,* 1985.

and 3.9 in mid-1984. Both the dividend yield and the earnings-price ratio show the differential between the United States and foreign equity markets declining in 1985 and 1986. As of 1987, the rate of return on U.S. equities was still perceived as high, particularly relative to Japanese equities, attracting new foreign money into the U.S. stock market. The same could have been said for U.S. real estate.

To summarize the results on various assets, they generally show that the low or negative differentials in the rates of return between the United States and other countries in the late 1970s turned to substantial positive differentials in the early 1980s. Since the dollar was weak in the late 1970s and strong in the early 1980s, the evidence supports the argument that the change in return differentials induced a shift in investor preferences, away from foreign assets and toward U.S. assets. One dent in the simplicity of this story is the dip in return differentials from mid-1982 to 1983, while the dollar was still appreciating. Some argue that this may have been due to safe haven effects associated with the debt crisis. The other problem of timing is that the second peak in return differentials occurred nine months before the dollar peaked in March 1985. It is possible that a "speculative bubble" was driving the dollar during that short period, with investors increasing their demand for dollars due to short-term expectations of continued appreciation formed by extrapolating past trends.[48] But the subsequent 1985–86 decline in the value of the dollar, simultaneous with continued declines in all of the measures of return differentials, supports the causal relationship between the two.

9.6 Saving, Investment, and U.S. Macroeconomic Policies

If rates of return have been the driving force behind international capital flows and the exchange rate, what is the driving force behind rates of return?

Interest rates and securities prices are determined by many factors. Particularly on a daily or monthly basis, corresponding fluctuations in the market-clearing price will result from whatever unpredictable fluctuations in demand for an asset occur. Interest rate volatility has been even higher in the 1980s than previously. This is partly the result of deregulation and innovation in world financial markets. However, the dominant source of the longer-term swings in the real rates of return discussed in the preceding section appears to be domestic: U.S. macroeconomic politices. So far in the 1980s, international capital markets have worked to dampen swings in U.S. rates of return, rather than working as a source of disturbances. But in the future, U.S. interest rates will increasingly be determined at the mercy of foreign investors.

9.6.1 Monetary Policy

In the latter half of the 1970s, expansionary monetary policy on the part of the Federal Reserve Board drove down U.S. real interest rates. That is, even though nominal interest rates were at high levels by historical standards, the expected inflation rate was also very high, so the difference of the two was low, even negative. Toward the end of the decade, public concern shifted toward the inflation problem and away from employment and growth, which had turned out to be surprisingly steady. The Fed tried to brake the rapid rate of money growth, particularly after Paul Volcker was appointed chairman, but with no success at first. Monetarist economists charged that the problem was the Fed's use of the nominal interest rate as an intermediate target, as opposed to the supply of bank reserves or the monetary base, which was argued to be evidence of a lack of true commitment to the yearly announced target for growth in the aggregate money supply (M1). By October 1979 Volcker had decided that interest rates would have to be allowed to rise much more sharply if money growth and the inflation rate were to be reduced. He went along with the monetarists to the extent of announcing that the Fed would no longer target the interest rate on federal funds, even on a short-term basis, but would instead target reserves. This was a convenient way of tightening monetary policy without taking the political heat for higher interest rates. Interest rates have been significantly more volatile ever since (though the various measures of the money supply have also been more variable than before).

With a small lag, the new policy produced the anticipated reduction in demand for goods when interest rates shot up, particularly after credit controls were imposed in March 1980. After the brief 1980 recession had passed, monetary policy was tightened anew, and interest rates climbed further. The period of dollar appreciation dates from this time. The second, more serious, recession began in mid-1981. A major consequence of the higher degree of international capital mobility in the 1980s compared to earlier decades is that changes in monetary policy operate strongly through the exchange rate and foreign demand for U.S. products, rather than solely through the interest rate and domestic demand.

Although nominal interest rates had reached a plateau, and even dropped discretely in August 1982 when the Federal Reserve responded to the Mexican debt crisis and general macroeconomic conditions by increasing money growth, inflation was coming down. Thus, long-term real interest rates continued their general upward trend through mid-1984, with the further consequences for the behavior of international investors and the appreciation of the dollar that we have seen.

Money growth by the conventional measures has been relatively rapid ever since the recession; M1 grew 10.3 percent per year from 1982: 2 to 1986: 2.[49] For the first four years after the acceleration began, the monetarists warned that inflation would resurge with the customary six- to eighteen-month lag. Volcker publicly justified exceeding the yearly money targets by pointing to exogenous shifts in velocity (defined as the relationship between the money supply and dollar GNP). The exogenous shifts were at first identified as the special factors of maturing All-Savers' Certificates and the nationwide legalizing of interest on checking accounts, then more generally as the environment of deregulation and innovation in the banking industry. An equally important reason for allowing faster growth in the money numbers was the *endogenous* shift in velocity that occurs when people wish to hold more money because expected inflation and nominal interest rates have fallen.

In the event, Volcker was right and the monetarists were wrong. Inflation did not reignite during this period. Even with the recovery of real economic activity that began in 1983, which proceeded rapidly until mid-1984 and then continued at a considerably slower pace through 1986, nominal GNP grew more slowly than the money supply: 8.0 percent per year from 1982:II to 1986:II (*Economic Indicators,* September 1986). Thus velocity grew at 2.3 (= 10.3 − 8.0) percent per year, in contrast to its past historical pattern of *declining* roughly 3 percent per year. If the Federal Reserve had followed the explicit monetarist prescription of rigidly precommitting to a money growth rate lower than that of the preceding period, say 3 percent, and velocity had followed the same path, then nominal GNP would have risen at only 0.7 per year. This is an upper bound, because with even lower inflation than occurred, velocity would almost certainly have fallen even more than it did. The implication seems clear that the 1981–82 recession would have lasted another four years.

9.6.2 Corporate Tax Policy and Investment

If the velocity-adjusted growth rate of money was not unreasonably high after 1982, neither was it low. How do we explain the fact that the long-term real interest rate in mid-1984 was as high as or higher than it was in mid-1982? Or that even in 1987 it was still higher than in 1980?

Think of the real interest rate being determined so that the funds needed for investment do not exceed the funds available from saving, the investment rate depending negatively on the real interest rate, and the national saving rate also depending (presumably positively) on the real interest rate.[50] (Investment is defined as additions to business plant and equipment, the residential housing stock, and inventories. National

saving is defined as private saving plus public saving.) Then the increase in real interest rates could be due either to an upward shift in investment, a downward shift in national saving, or some combination of the two.[51] First, we consider investment.

The productivity slowdown of the 1970s convinced many that enhanced incentives to capital formation were called for, and Ronald Reagan was elected in 1980 in part on that platform.[52] The 1981 tax bill granted liberalized depreciation allowances (ACRS, the accelerated cost recovery system) and a liberalized investment tax credit. When investment grew rapidly in 1983–84, some claimed that the tax incentives, together with the more general probusiness climate (a "golden age of capitalism"), was responsible, and that the demand for funds to finance the investment boom in turn explained the increase in real interest rates and the net capital inflow. The argument seemed to fit in well with the safe haven explanation for the strength of the dollar. The main problem with it is that the investment rate always rises in expansions, and the increase in the 1983–84 recovery was no greater than the decrease in the 1981–82 recession.[53] By 1985 the investment rate had merely reattained the approximate level of the 1970s, as table 9.12 shows. A second argument is that calculations of the benefits of the tax incentives suggest that (1) they were smaller than the increase in real interest rates, so that the after-tax real cost of capital to firms was not reduced, and (2) the investment boom was concentrated in sectors like office computers, where the tax incentives were not very relevant and a technological explanation seems to fit instead.[54]

Ironically, the Treasury tax reform plan of December 1984, and the revised tax reform plan actually passed by Congress and signed by the president in 1986, sharply raised corporate taxes. The logic was that raising corporate tax revenue was the only way to change personal income tax brackets and deductions in such a way as to leave a majority of taxpayers feeling that they were better off, and simultaneously maintain overall "revenue neutrality." But the effect was to undo the incentives to investment enacted in 1981.

9.6.3 Budget Deficit

Having found that there has been no increase in the investment rate, relative to the 1970s, to explain by itself the high level of real interest rates and the high capital inflow in the mid-1980s, we now turn to national saving.[55] We begin with the "dissaving" of the government, that is, the budget deficit.

The federal budget has not been in surplus since 1969. In the 1975 recession, the budget deficit reached the then postwar record high of 3.5 percent of GNP. Steady growth in national income over the next

Table 9.12 **U.S. Net Savings and Investment as Percentages of GNP, 1951–85**

	1951–60	1961–70	1971–80	1981	1982	1983	1984	1985
Total net saving	6.9%	7.5%	6.1%	5.2%	1.6%	1.8%	4.1%	3.0%
Net private saving	7.2	8.0	7.1	6.1	5.4	5.9	7.4	6.5
Personal saving	4.7	4.7	4.9	4.6	4.4	3.6	4.3	3.3
Corporate saving	2.5	3.3	2.2	1.4	1.0	2.3	3.1	3.2
State-local government surplus	−0.2	0.1	0.9	1.3	1.1	1.3	1.4	1.4
Federal government surplus	−0.2	−0.5	−1.9	−2.2	−4.8	−5.4	−4.8	−4.9
Total net investment	7.0	7.5	6.3	5.4	1.6	1.8	3.8	2.8
Net private domestic investment	6.7	7.0	6.2	5.2	1.8	2.9	6.4	5.7
Plant and equipment	2.7	3.5	3.0	3.1	2.0	1.5	4.8	4.9
Residential construction	3.2	2.5	2.5	1.3	0.6	1.8		
Inventory accumulation	0.8	1.1	0.7	0.9	−0.9	−0.4	1.6	0.8
Net foreign investment	0.3	0.5	0.1	0.2	−0.2	−1.0	−2.6	−2.9
Memoranda: Capital consumption	8.9	8.5	9.9	11.2	11.7	11.4	11.0	11.0
Gross private saving	6.1	16.4	17.0	17.2	17.1	17.3	18.4	17.6

Sources: U.S. Department of Commerce, *Survey of Current Business*, various issues; Friedman 1986.

Notes: Data are averages (except for 1981–85) of annual flows. Data for 1985 are through 1985:2 at seasonally adjusted annual rates. Total net saving and total net investment differ by statistical discrepancy. Detail may not add to totals because of rounding.

four years raised tax revenues and reduced the deficit to 1.5 percent of GNP, or $38 billion, by 1979. But this was still considered too high.

The improbable Laffer curve theory, which held that a reduction in personal income tax rates would stimulate production and income so much as to raise total tax revenues rather than lower them, helped convince politicians to enact large tax cuts in 1981, to be installed over three years. At the same time, some categories of domestic spending were cut sharply, but they were a relatively small part of the total. Given the enormous buildup in military expenditure, the exemption of social security benefits from cuts, the runaway increases in some other categories like farm support, and the exogenous fact of enormous interest payments on the national debt, it was inevitable that the federal budget deficit would soar to unprecedented levels. Initially it was possible to blame the increased budget deficit on the reduced tax revenues from the 1981–82 recession. It was claimed that rapid growth in income and therefore in tax revenues would return the budget to balance in a few years. But the tax rate cuts and spending increases were phased in as quickly as income grew. The deficit reached $208 billion in 1983—more than three times the "intolerably high" levels of the late 1970s—and remained in the vicinity of $200 billion for the following three years. The increase in the federal deficit relative to the 1970s was 3.0 percent of GNP, as table 9.12 shows.

State and local governments in the aggregate improved their surplus by about $30 billion between 1980 and 1985 (*Economic Report of the President* 1986, 284), or by 0.5 percent of GNP relative to the 1970s, as table 9.12 shows. Thus the decline in the general government budget balance was not quite as bad as the decline in the federal budget balance.

9.6.4 Private Saving

Table 9.13 reports the total gross national saving rate, including both private and government saving, for the twenty-four countries in the OECD. The figure for the United States in 1984 was 17.0 percent, and the average for the others was 23.1 percent. Even aside from public dissaving in the form of government budget deficits, there are disparities in private saving between the United States and other countries. The U.S. household saving rate, at 5.1 percent of disposable income in 1985, is extremely low by international standards. The United Kingdom's is 11.9, West Germany's 13.0, Japan's 22.5.[56] Japan's especially high rate of household saving has been attributed to, among other things, a prosaving tax and financial system, a shortage of housing, leisure, and consumption goods on which to spend income, and a demographic bulge in the generation of Japanese who will be retiring over the next twenty years.

According to some theories, an increase in the U.S. budget deficit such as has occurred in the 1980s should produce an increase in private

Table 9.13 **Gross Saving as Percentage of GDP**

Country	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
United States	21.0	20.3	19.4	19.5	19.8	18.1	18.3	18.6	20.7	19.3	17.4	17.9	18.9	20.2	20.3	18.3	19.0	15.9	15.2	17.0
Japan	31.5	32.1	34.4	35.8	36.7	40.2	38.0	38.3	39.2	36.3	32.3	32.6	32.0	32.3	31.5	31.1	31.1	30.5	29.8	30.6
Germany	27.2	26.8	25.2	26.8	27.6	28.1	27.1	26.4	26.6	24.8	20.9	22.6	21.8	22.6	22.7	21.8	20.2	20.3	21.2	21.9
France	25.7	25.8	25.7	24.6	25.0	26.2	25.6	26.0	26.0	24.5	23.0	23.0	22.7	22.6	22.8	22.2	19.7	18.6	18.1	18.6
United Kingdom	20.1	19.6	18.4	19.0	21.6	22.0	20.1	19.6	21.0	16.3	15.5	16.0	19.6	19.6	20.0	18.5	17.3	18.2	17.9	19.3
Italy	23.6	22.8	22.8	23.6	24.4	24.2	22.7	22.0	22.4	21.9	20.1	22.1	22.6	22.4	23.0	22.5	19.0	18.4	17.9	18.1
Canada	23.0	23.9	22.6	22.1	23.0	21.2	20.5	21.3	23.5	24.8	21.1	21.3	19.7	20.1	22.5	22.9	22.4	19.0	19.2	19.4
Total of above countries	22.9	22.5	22.0	22.4	23.2	23.0	22.5	23.0	24.9	23.2	20.8	21.4	22.1	23.2	23.1	21.8	21.4	19.5	19.1	20.3
Austria	27.5	28.6	26.9	27.0	28.3	30.3	30.2	30.8	30.6	30.2	25.9	25.0	24.3	25.3	25.7	25.8	24.3	23.9	22.6	24.1
Belgium	23.7	23.6	24.2	23.3	24.4	27.1	25.6	25.5	24.6	25.3	21.8	22.4	20.8	20.5	18.8	17.5	13.5	13.9	14.9	15.6
Denmark	24.6	22.9	21.8	22.3	23.0	21.8	22.4	24.4	24.4	22.1	19.4	19.1	18.9	18.8	16.6	14.9	12.4	12.1	13.9	15.3
Finland	23.7	23.5	23.2	25.6	26.8	28.0	27.9	27.2	28.7	30.4	26.5	24.5	23.7	23.8	25.5	26.0	25.1	23.8	23.7	24.5
Greece	20.5	20.3	20.1	19.5	21.9	25.0	26.4	28.3	32.0	26.5	23.3	24.4	24.5	26.3	28.3	28.9	25.3	18.4	16.6	16.1
Iceland	31.0	28.2	23.3	21.7	27.3	25.8	26.3	25.1	28.8	24.2	23.7	26.5	27.3	25.6	23.6	23.8	21.5	19.1	18.8	18.0
Ireland	19.4	19.0	21.0	20.7	20.9	20.4	20.2	22.9	23.4	19.2	21.8	20.1	22.5	22.2	19.6	16.1	13.1	14.6	16.4	17.5
Luxembourg	30.8	30.0	28.3	29.9	35.0	40.8	36.5	39.3	43.2	47.9	39.1	44.0	41.8	44.8	44.9	46.6	46.1	51.8	54.7	57.5
Netherlands	26.9	26.3	26.6	27.5	26.9	26.5	26.2	26.9	28.3	27.3	23.0	23.6	22.4	21.1	20.4	20.0	20.4	20.8	20.8	23.0
Norway	28.0	27.9	27.7	27.3	25.8	28.3	27.5	27.3	28.4	28.9	26.7	25.2	22.3	23.4	25.3	29.6	29.4	27.7	28.3	30.8
Portugual	26.3	26.6	30.3	26.4	27.7	31.7	30.4	37.1	36.9	23.0	12.5	15.3	19.7	24.8	27.8	26.8	23.4	22.3	21.2	20.1
Spain	22.6	22.8	22.1	22.8	24.6	24.6	24.7	24.9	25.4	24.6	23.5	21.4	20.8	21.2	20.4	18.8	18.2	17.5	17.6	19.9

Sweden	26.3	25.2	24.9	23.8	23.8	24.8	24.0	23.4	24.1	22.9	23.8	21.4	17.9	17.6	17.8	17.7	15.7	14.2	16.4	17.9
Switzerland	29.9	30.2	30.6	31.3	31.1	32.6	32.9	32.6	32.1	31.7	27.8	26.8	26.5	27.0	26.6	26.7	28.4	28.1	27.9	28.6
Turkey	14.1	16.8	16.9	16.7	16.5	19.2	17.6	20.9	21.4	19.2	18.0	19.6	18.2	16.0	16.5	16.2	18.4	19.0	17.0	17.2
Total smaller European countries	24.8	24.6	24.5	24.5	25.1	26.3	26.0	26.6	27.2	26.0	23.3	22.7	21.6	21.7	21.3	21.1	20.2	19.7	20.0	21.4
Australia	24.6	23.9	23.5	24.0	25.3	25.2	25.8	26.6	27.3	26.6	23.7	23.0	21.9	20.6	22.5	21.9	21.7	19.8	17.9	20.3
New Zealand	20.9	17.9	19.5	20.3	21.3	21.8	25.6	26.6	27.7	23.3	22.5	25.8	22.0	21.2	24.0	21.6	22.8	21.4	21.6	24.5
Total smaller countries	24.6	24.3	24.2	24.3	25.0	26.0	26.0	26.6	27.2	26.0	23.3	22.8	21.6	21.6	21.5	21.2	20.5	19.8	19.8	21.3
Total OECD	23.1	22.7	22.3	22.6	23.4	23.4	23.0	23.5	25.3	23.7	21.2	21.7	22.0	22.9	22.8	21.7	21.2	19.5	19.2	20.4
Four major European countries	24.3	23.9	23.1	23.8	24.9	25.5	24.4	24.1	24.7	22.6	20.3	21.4	21.8	22.0	22.2	21.3	19.2	19.0	19.1	19.8
OECD Europe	24.4	24.1	23.5	24.0	25.0	25.8	24.9	24.8	25.5	23.7	21.3	21.8	21.7	21.9	21.9	21.2	19.5	19.2	19.4	20.3
EEC	24.3	23.9	23.2	23.8	24.9	25.6	24.6	24.5	25.1	23.2	20.7	21.5	21.7	21.9	21.9	20.9	19.0	18.7	18.8	19.7
Total OECD less the United States	25.2	25.2	25.1	25.8	26.9	28.0	27.0	27.3	28.3	26.5	23.5	24.1	23.9	24.4	24.1	23.4	22.6	21.9	22.0	23.1

Sources: National Accounts (annual OECD publication); table from OECD *Economic Outlook*, May 1986.

Notes: The data in this table are measured according to the standard definitions of the OECD–United Nations system of accounts (see *A System of National Accounts*, Series F, no. 2, rev. 3, *United Nations*, 1968). The percentages for each group of countries are calculated from the total GDP and gross saving for the group, with both aggregates expressed in U.S. dollars at current exchange rates. Percentages for country groups exclude countries for which no data are shown in the table. Gross saving is the sum of national disposable income and consumption of fixed capital *less* consumption expenditure of households and government. It is the surplus available from current transactions to finance gross capital formation and capital transactions with the rest of the world.

saving to offset it. The theoretical argument is that households will think ahead to the day when the government has to raise taxes to pay off the debt, and that they will increase their saving today so that they or their children will have the resources to pay those taxes. The original supply-siders in the administration relied less on that theoretical argument than on the argument that households would respond to a higher after-tax rate of return by saving more. In any case, the predicted increase in the personal saving rate did not materialize. The personal saving rate, as a percentage of disposable personal income, fell from 7.1 percent in 1980 to 5.1 percent in 1985. Corporate saving rose, on the other hand, by 1 percent of GNP in 1985 relative to the 1970s. When personal and corporate saving are added together, total private saving as a share of GNP in 1985 was approximately the same as it was on average in the 1970s.

Thus, there was no upsurge in private saving to offset the increase in the budget deficit. This means that there was less national saving left over to finance investment.

9.6.5 The Relationship between National Saving and Investment

In a closed economy, that is, one cut off from the rest of the world, the fall in national saving would have driven up the cost of capital however much necessary to reduce the level of investment to the level of domestic funds available to finance it.[57] As it was, the cost of capital did rise in the 1980s, whether measured as the real interest rate or the return on equity, as we saw in the previous section. But because the increase in interest rates attracted a large capital inflow ("net foreign investment," in table 9.9), investment in plant and equipment was not crowded out as much as it otherwise would have been. The net capital inflow is precisely the current account deficit, which has generated so much concern, viewed from its more flattering profile. That a decline in national saving must either be offset by a net capital inflow or else reflected as a decline in investment, is a very general proposition; the natural mechanism is the increase in real interest rates, but the proposition must hold, no matter what happens to financial market prices.

An interesting question is how changes in national savings have been divided between changes in capital flow and changes in investment in prior historical episodes. Figure 9.5 shows U.S. national saving, investment, and the current account surplus (capital outflow) over the last three decades, each as shares of GNP. The saving rate and investment rate move closely together; the difference between the two, the current account, moves less. That is, before the 1980s, foreign capital usually played a small role in financing U.S. investment.

It would be wrong to conclude from this correlation alone that a change in national saving resulting from an exogenous change in fiscal

policy is necessarily reflected in investment rather than in the current account. The close correlation between saving and investment rates in figure 9.5 could result from the effect of a third factor on both, rather than a causal relationship between the two. The business cycle is the most obvious third factor: saving rates and investment rates are both known to rise in booms and fall in recessions.

There are several ways of attempting to address this problem. One would be to adjust saving and investment cyclically, or to use more sophisticated econometric techniques. A second is to look at saving and investment rates *across countries* rather than over time. Table 9.14 gives the investment rates for twenty-four countries to match the national saving rates in table 9.13. A country like the United States—or Belgium, Denmark, and Sweden—which has a low rate of national saving, also tends to have a low rate of investment; a country like Japan—or Finland, Norway, and Switzerland—which has high saving rates, tends to have high investment rates.

A third way to get around the problem of cyclical variation in saving and investment is to average yearly observations over somewhat longer time intervals to take out some of the cyclical effect. Figure 9.6 shows decade averages of saving, investment, and the current account from the 1870s to the 1970s. The saving and investment rates are still highly correlated. The only time when the two diverged as widely as they have in the mid-1980s was the 1910s. U.S. investment had fallen slightly below national saving, that is, the country had begun to run current account surpluses, in the 1890s. But this capital outflow reached its highest during World War I, as the United States was lending to finance dissaving in Europe. Subsequent divergences between saving and investment were much smaller.

The experience of the 1980s stands out among industrialized countries, even if we look only at the absolute magnitude of the net capital flow (as opposed to the direction). The United States and other economies, which erected barriers to trade and capital flows in the 1930s and 1940s, have become more integrated since. The increasing degree of integration of financial markets in the 1970s and 1980s allows countries to have different saving rates without the differences in investment rates having to be as large; international capital flows make up the difference.

9.6.6 The United States as a Net Debtor

The U.S. current account at present stands out, even more than by virtue of its absolute magnitude, because a wealthy country is running persistent deficits. Through most of the twentieth century the United States has run current account surpluses, as we have seen. Even in the 1970s, when the two oil shocks raised import spending, the current account was on average equal to zero.

Table 9.14 **Gross Fixed Capital Formation as Percentage of GDP**

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
United States	18.7	18.5	17.9	18.1	18.2	17.6	18.1	18.7	19.16	18.4	17.0	17.1	18.3	19.5	19.8	18.5	17.8	16.5	16.8	17.9
Japan	29.8	30.4	32.0	33.2	34.4	35.5	34.2	34.1	36.4	34.8	32.5	31.2	30.2	30.4	31.7	31.6	30.7	29.7	28.3	27.8
Germany	26.1	25.4	23.1	22.4	23.3	25.5	26.1	25.4	23.9	21.6	20.4	20.1	20.2	20.7	21.8	22.7	21.8	20.5	20.6	20.3
France	23.3	23.7	23.8	23.3	23.4	23.4	23.6	23.7	23.8	24.3	23.3	23.3	22.3	21.4	21.5	21.9	21.4	20.8	19.8	18.9
United Kingdom	18.5	18.5	19.1	19.4	18.9	19.0	18.9	18.7	20.0	20.9	19.9	19.4	18.6	18.5	18.8	18.1	16.4	16.4	16.4	17.4
Italy	19.3	18.8	19.5	20.3	21.0	21.4	20.4	19.8	20.8	22.4	20.6	20.0	19.6	18.7	18.8	19.8	20.2	19.0	17.9	18.2
Canada	23.5	24.5	23.2	21.5	21.4	20.8	21.8	21.7	22.4	23.0	24.0	23.1	22.7	22.2	22.6	22.8	23.5	21.5	19.2	18.1
Total of above countries	20.9	20.8	20.5	20.7	21.1	21.3	21.6	22.1	23.0	22.4	21.0	20.8	21.2	21.9	22.3	21.8	21.1	19.9	19.5	19.9
Austria	27.3	27.8	26.6	25.7	25.1	25.9	27.9	30.2	28.5	28.4	26.7	26.0	26.7	25.6	25.1	25.5	25.2	23.0	22.2	21.8
Belgium	22.4	22.9	22.9	21.5	21.3	22.7	22.1	21.3	21.4	22.7	22.5	22.1	21.7	21.7	20.8	21.2	18.1	17.4	16.4	16.1
Denmark	24.1	24.1	24.2	23.4	24.6	24.7	24.2	24.6	24.8	24.0	21.1	23.0	22.1	21.7	20.9	18.8	15.6	16.1	15.9	17.3
Finland	26.3	26.5	25.1	23.1	23.8	26.3	27.5	27.9	28.8	29.8	31.3	27.9	27.0	24.0	23.2	25.3	25.0	24.9	25.1	23.4
Greece	21.6	21.7	20.3	23.2	24.6	23.6	25.2	27.8	28.0	22.2	20.8	21.2	23.0	23.9	25.8	24.2	22.3	20.2	20.3	18.6
Iceland	27.2	28.5	32.1	32.7	25.7	25.0	30.7	29.2	31.6	33.9	33.2	28.7	27.8	24.8	23.7	25.3	24.8	25.1	22.5	22.2
Ireland	21.4	19.8	20.1	20.9	23.3	22.7	23.6	23.7	25.3	24.6	22.7	25.0	24.8	27.7	30.5	28.6	29.1	25.9	22.7	21.0
Luxembourg	28.0	26.6	23.9	22.1	22.2	23.1	28.4	27.8	27.3	24.5	27.8	24.9	25.1	24.1	24.3	27.0	25.4	25.9	23.7	22.2
Netherlands	25.2	26.3	26.4	26.9	24.6	25.9	25.4	23.6	23.1	21.9	21.1	19.4	21.1	21.3	21.0	21.0	19.2	18.2	18.1	18.4
Norway	28.2	28.7	29.7	26.9	24.3	26.5	29.7	27.7	29.3	30.5	34.2	36.3	37.1	31.8	27.7	24.8	28.0	25.5	24.8	25.6
Portugal	22.8	25.1	26.6	22.2	22.6	23.2	24.7	27.1	26.8	26.0	25.9	25.1	26.5	27.9	26.6	28.6	32.2	32.3	30.3	24.7
Spain	21.7	22.0	22.3	22.8	23.2	23.2	21.2	22.2	23.6	24.7	23.3	21.8	21.0	19.9	18.9	19.4	20.3	19.7	18.8	17.8
Sweden	24.7	24.8	24.8	23.9	23.2	22.5	22.0	22.2	21.9	21.5	20.9	21.2	21.1	19.4	19.8	20.2	19.2	18.8	18.7	18.4

Switzerland	28.7	27.4	26.0	25.6	25.8	27.5	29.2	29.7	29.4	27.6	24.0	20.6	20.7	21.4	21.8	23.8	24.1	23.1	23.3	23.3
Turkey	14.6	15.9	16.4	17.3	17.4	18.6	17.0	20.2	20.1	18.6	20.8	23.1	24.4	21.9	20.8	19.9	19.3	19.1	18.9	18.5
Total smaller European countries	24.0	24.3	24.1	23.7	23.4	24.1	24.2	24.5	24.7	24.3	23.5	22.9	23.1	22.2	21.6	21.8	21.4	20.6	20.2	19.7
Australia	27.7	27.3	26.5	26.9	26.7	26.5	26.9	25.2	24.4	23.8	24.2	24.1	23.8	23.8	23.1	23.9	25.6	24.8	22.3	21.8
New Zealand	21.9	21.9	20.3	18.5	19.6	20.8	20.7	22.5	22.7	25.9	27.0	24.8	22.4	20.8	18.2	18.2	21.2	23.0	22.7	21.5
Total smaller countries	24.4	24.6	24.3	24.0	23.7	24.3	24.5	24.5	24.6	24.3	23.6	23.1	23.2	22.4	21.7	22.0	21.9	21.2	20.5	20.1
Total OECD	21.3	21.3	21.0	21.1	21.5	21.7	22.0	22.4	23.2	22.7	21.5	21.2	21.5	22.0	22.2	21.8	21.3	20.1	19.7	19.9
Four major European countries	22.2	22.0	21.6	21.6	21.9	22.7	22.8	22.5	22.6	22.3	21.1	20.9	20.4	20.2	20.6	21.0	20.1	19.4	18.9	18.9
OECD Europe	22.7	22.7	22.4	22.2	22.3	23.2	23.3	23.1	23.3	23.0	21.9	21.6	21.3	20.9	21.0	21.3	20.5	19.8	19.3	19.2
EEC	22.4	22.3	22.0	22.0	22.2	23.0	22.9	22.7	22.8	22.6	21.4	21.0	20.7	20.5	20.7	21.0	20.1	19.4	18.9	18.7
Total OECD less the United States	23.9	24.0	24.0	24.1	24.5	25.3	25.3	25.3	26.0	25.5	24.2	23.8	23.5	23.4	23.5	23.6	23.4	22.4	21.7	21.6

Source: National Accounts (annual OECD publication); table from OECD *Economic Outlook*, May 1986.

Notes: The data in this table are measured according to the standard definitions of the OECD–United Nations system of accounts (see *A System of National Accounts*, Series F, no. 2, rev. 3, United Nations, 1968). The percentages for each group of countries are calculated from the total GDP and gross fixed capital formation for the group, with both aggregates expressed in U.S. dollars at current exchange rates.

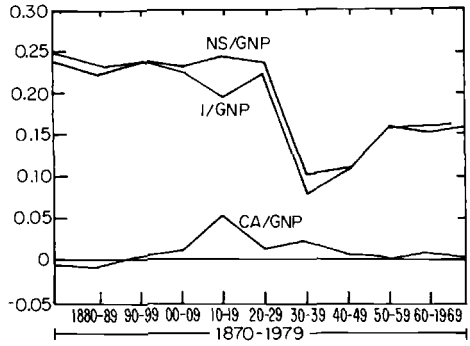

Fig. 9.6 U.S. national saving (private saving plus government budget surplus) (NS), investment (I), and current account (CA) as shares of GNP, 1870–1979. *Sources:* Ransom and Sutch 1983, tables 4 and E1; U.S. Department of Commerce, *Historical Statistics of the United States.*

As the direct implication of the current account surpluses from the 1980s to the 1960s, the United States was accumulating net claims on foreigners. During World War I the country passed from being a net debtor vis-à-vis the rest of the world to being a net creditor. By 1981 the United States had attained a recorded net investment position of $140.7 billion (with 37 percent of the private assets consisting of direct investment and 47 percent consisting of bank-reported claims) (*Economic Report of the President* 1986, 371).

Net interest and other income on this investment position earned $34.1 billion in 1981, more than enough to pay for the deficit in merchandise trade and leave a surplus in goods and services or in the overall current account. But the current account went into deficit in 1982, as we have seen, as a result of the pattern of high U.S. real interest rates, capital inflow from abroad, strong dollar, and U.S. trade deficit. The situation deteriorated rapidly. By 1985 the current account deficit reached $117.7 billion. (Despite the depreciation of the dollar that began in March 1985, the current account deficit in 1986 was in the neighborhood of $140 billion.) It took only three years of current account deficit to undo a century of accumulation of foreign assets. Sometime in early 1985[58] the country on the books returned to net-debtor from net-creditor status, as table 9.15 shows. By the end of 1986 the U.S. recorded position was approximately −$225 billion, a debt far higher than the creditor position was at its peak. Even if the depreciated dollar leads to an improved trade balance by 1988, as it is expected to in line with the customary lags, the United States will probably continue to run substantial trade deficits for quite a few years, and the net debt will continue to mount rapidly.

Even if the 1985–86 depreciation of the dollar soon reduces the trade deficit to a plateau of $100 billion, the net debt position would reach the vicinity of $600 billion by the end of 1989. Simply multiplying by an interest rate would suggest that the annual cost of interest and dividends to investors in other countries would then run on the order of $40 billion to $50 billion. In other words, to eliminate the overall current account deficit in the 1990s would then require not just an elimination of the remaining $100 billion trade deficit, but a reversal to a trade *surplus* of $40 billion to $50 billion in order to earn the money to service the debt that has been incurred in the meantime.

Calculation of the interest and dividend payments is more complicated than this, however, because different assets pay different rates of return and the composition of U.S. overseas assets is different from the composition of U.S. liabilities. Foreign investments in the United States are somewhat more concentrated in Treasury and other bonds (19.3 percent of privately held assets) as opposed to direct investment (21.3 percent) and bank-reported liabilities (41.3 percent). (Corporate stocks are 14.7 percent, and other U.S. liabilities are 3.4 percent.) This is as compared to U.S. investments abroad which are relatively less concentrated in bonds (8.9 percent of private assets) and relatively more in direct investment (28.3 percent) and bank-reported assets (54.4 percent). (Corporate stocks are 5.0 percent, and other U.S. assets are 3.4 percent.) Earnings on direct investment and bank loans tend to be greater than interest earned on bonds; as a result, recorded earnings on U.S. assets abroad still exceed recorded payments on foreign investments in the United States, even a year after its return to net debtor status. In 1986 (first three quarters), the recorded return on all U.S. investments abroad ran at an average 9.7 percent, the payment rate on U.S. liabilities at only 6.5 percent. If this differential holds up, the recorded balance on overseas investment income will decline more slowly than one would otherwise think. But an unprecedented decline will nevertheless take place. Estimates by the Institute of International Economics place the likely 1990 investment income balance in the range of −$15 billion to −$25 billion (Islam 1987).

If the funds borrowed from abroad in the 1980s were being used to finance productive investment in plant and equipment, then the additional output would be available in future decades to service the debt. Unfortunately, as we have seen, the funds have been going to finance the federal budget deficit (or, equivalently, to offset crowding out of private investment). As many less developed debtor countries have discovered over the last five years, military arms or consumer goods do not generate the foreign exchange earnings needed to service the debt incurred when they were earlier purchased.

All of the above figures on the U.S. net indebtedness position are subject to more than the usual amount of measurement error. The two

Table 9.15 **International Investment Position of the United States at Year End, 1984 and 1985 (millions of dollars)**

Line	Type of Investment	Position 1984[r]	Changes in Position in 1985 (decrease [−])					Position 1985[p]
			Attributable to:					
			Capital Flows (*a*)	Price Changes (*b*)	Exchange[a] Rate (*c*)	Other Changes[b] (*d*) Changes	Total ($a+b+c+d$)	
1	Net international investment position of the United States (line 2 less line 20)	4,384	−94,670	−24,335	7,007	174	−111,824	−107,440
2	U.S. assets abroad	898,187	32,436	11,991	8,540	1,212	54,180	952,367
3	U.S. official reserve assets	34,187	3,436	—	4,400	−6	8,252	43,185
4	Gold	11,096	—	—	—	−6[c]	−6	11,090
5	Special drawing rights	5,641	897	—	755	—	1,652	7,293
6	Reserve position in the International Monetary Fund	11,541	−908	—	1,314	—	406	11,947
7	Foreign currencies	6,656	3,869	—	2,331	—	6,200	12,856
8	U.S. government assets, other than official reserve assets	84,636	2,824	—	−42	—	2,782	87,418
9	U.S. loans and other long-term assets[d]	82,657	2,935	—	−7	2	2,930	85,587
10	Repayable in dollars	80,487	2,961	—	1	2	2,964	83,811
11	Other[e]	1,810	−26	—	−8	—	−34	1,776
12	U.S. foreign currency holdings and U.S. short-term assets	1,979	−111	—	−35	−2	−148	1,831
13	U.S. private assets	778,618	25,754	11,991	4,182	1,218	43,146	821,764
14	Direct investment abroad	212,994	18,752	—	—	921	19,673	232,667
15	Foreign securities	89,997	7,977	11,991	4,182	—	24,150	114,147
16	Bonds	62,071	4,018	5,688	1,648	—	11,354	73,425
17	Corporate stocks	27,926	3,959	6,303	2,534	—	12,796	40,722

Source: Survey of Current Business, June 1986.

Notes: r = revised; *p* = preliminary.

*Less than $500,000 (+ or −).

[a]Represents gains or losses on foreign currency-denominated assets due to their revaluation at current exchange rates.

[b]Includes changes in coverage, statistical discrepancies, and other adjustments to the value of assets.

[c]Reflects U.S. Treasury sales of gold medallions and comemorative and bullion coins; these demonetizations are not included in international transactions capital flows.

Position by Area						Position by Area			
Western Europe		Canada		Japan		Latin American Republics and Other Western Hemisphere		Other Countries, International Organizations and Unallocated	
1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
−150,522	−198,480	56,511	52,926	−19,269	−45,531	78,311	54,048	39,350	29,597
272,148	316,552	115,006	118,670	48,362	56,288	267,040	266,102	195,630	194,755
4,119	8,491	*	*	2,037	4,365	500	—	28,277	30,330
—	—	—	—	—	—	—	—	11,096	11,090
—	—	—	—	—	—	—	—	5,641	7,293
—	—	—	—	—	—	—	—	11,541	11,947
4,119	8,491	*	*	2,037	4,365	500	—	—	—
10,511	10,179	709	619	443	361	15,510	16,535	57,462	59,723
10,419	10,036	676	589	425	339	15,154	16,245	55,983	58,377
10,172	9,815	676	589	425	339	14,730	15,854	54,844	57,213
247	221	—	—	—	—	424	391	1,139	1,164
92	143	33	30	18	22	356	290	1,479	1,346
257,518	297,282	114,297	118,051	45,882	51,562	251.030	249,567	109,891	104,702
92,017	106,762	46,830	46,435	7,920	9,095	25,229	29,479[f]	40,998[f]	40,896
31,414	50,063	40,662	46,806	3,508	5,383	2,689	2,225	11,724	9,670
19,667	29,748	29,671	33,297	659	1,532	2,087	1,548	9,987	7,300
11,747	20,315	10,991	13,509	2,849	3,851	602	677	1,737	2,370

[d]Also includes paid-in capital subscriptions to international financial institutions and outstanding amounts of miscellaneous claims that have been settled through international agreements to be payable to the U.S. government over periods in excess of one year. Excludes World War I debts that are not being serviced.

[e]Includes indebtedness that the borrower may contractually, or at its option, repay with its currency, with a third country's currency, or by delivery of materials or transfer of services.

[f]Includes, as part of international and unallocated, the estimated direct investment in international shipping companies, in operating oil and gas drilling equipment that is moved from country to country during the year, and in petroleum trading companies.

Table 9.15 (continued)

Line	Type of Investment	Position 1984[r]	Changes in Position in 1985 (decrease [−])					Position 1985[p]
			Attributable to:					
			Capital Flows (*a*)	Price Changes (*b*)	Exchange[a] Rate (*c*)	Other Changes[b] (*d*) Changes	Total (*a* + *b* + *c* + *d*)	
18	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	29,996	−1,665	—	—	−111	−1,776	28,220
19	U.S. claims reported by U.S. banks, not included elsewhere	445,631	691	—	—	408	1,099	446,730
20	Foreign assets in the United States	893,803	127,106	36,326	1,533	1,038	166,004	1,059,807
21	Foreign official assets in the U.S.	199,127	−1,324	4,507	—	−2	3,181	202,308
22	U.S. government securities	143,014	−841	1,563	—	—	722	143,736
23	U.S. Treasury securities	135,510	−546	1,072	—	—	526	136,036
24	Other	7,504	−295	491	—	—	196	7,700
25	Other U.S. government liabilities[i]	14,798	483	—	—	−1	482	15,280
26	U.S. liabilities reported by U.S. banks	26,090	522	—	—	−1	521	26,611
27	Other foreign official assets	15,225	−1,488	2,944	—	—	1,456	16,681
28	Other foreign assets in the United States	694,676	128,430	31,819	1,533	1,040	162,823	857,499
29	Direct investment in the United States	164,583	17,856	—	—	512	18,368	182,951
30	U.S. Treasury securities	58,330	20,500	5,002	—	—	25,502	83,832
31	U.S. securities other than U.S. Treasury securities	128,560	50,859	26,817	1,533	—	79,210	207,770
32	Corporate and other bonds	32,724	46,004	1,569	1,533	—	49,107	81,831
33	Corporate stocks	95,836	4,855	25,248	—	—	30,103	125,939
34	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	31,024	−1,172	—	—	−750	−1,922	29,102
35	U.S. liabilities reported by U.S. banks	312,179	40,387	—	—	1,278	41,665	353,844

[g]Details not shown separately are included in totals in lines 21 and 28.

[h]Details not shown separately are included in line 20.

Position by Area						Position by Area			
Western Europe		Canada		Japan		Latin American Republics and Other Western Hemisphere		Other Countries, International Organizations and Unallocated	
1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
9,479	9,796	5,158	4,429	1,544	1,491	10,237	9,457	3,578	3,047
124,608	131,261	21,647	20,381	32,910	35,593	212,875	208,406	53,591	51,089
422,670	515,032	58,485	65,744	101,819	188,729	188,729	212,054	156,280	165,158
72,322	77,862	1,686	1,473	h	h	9,359	11,781	h	h
g	g	g	g	h	h	g	g	h	h
g	g	g	g	h	h	g	g	h	h
g	g	g	g	h	h	g	g	h	h
2,684	3,098	157	156	1,564	1,361	908	766	9,487	9,899
g	g	g	g	h	h	g	g	h	h
g	g	g	g	h	h	g	g	h	h
350,348	437,170	56,809	64,271	h	h	179,370	200,273	h	h
108,211	120,906	15,286	16,678	16,044	19,116	16,201	17,050	8,841	9,201
g	g	g	g	h	h	g	g	h	h
89,519	150,117	19,718	25,317	4,193	10,542	8,107	12,314	7,023	9,480
25,585	67,453	1,290	1,579	2,910	8,628	1,236	1,826	1,703	2,345
63,934	82,664	18,428	23,738	1,283	1,914	6,871	10,488	5,320	7,135
11,412	11,986	3,022	2,388	2,475	2,969	7,190	4,654	6,925	7,105
g	g	g	g	h	h	g	g	h	h

[i]Primarily included U.S. government liabilities associated with military sales contracts and other transactions arranged with or through foreign official agencies.

major sources of error go in opposite directions. On the one hand, if most of the statistical discrepancy in the balance of payments, which has run at roughly $25 billion a year from 1979 to 1986, is unreported capital inflows, then the true net indebtedness is *worse* by some $200 billion.[59] On the other hand, some of the foreign assets acquired in the past, particularly direct investment, have undergone increases in value that are not reflected in the figures, suggesting that the true position may be better than recorded. It seems likely that the first effect is at least as important as the second. The Federal Reserve Board estimates that the country may have become a net debtor in 1983 rather than 1985, with net indebtedness reaching $235 billion in 1985.[60] In any case, the sheer magnitude of the current account deficits guarantees that the net indebtedness position is deteriorating very rapidly.

9.7 Conclusion

Massive U.S. borrowing from the rest of the world in the 1980s is the result of massive borrowing by the U.S. government. By 1980, the U.S. government had accumulated a debt of $914 billion over two centuries. This debt precisely doubled by 1985 and is estimated to have reached $2,130 billion by the end of 1986 (*Economic Indicators*, October 1986). The role of foreigners in financing the U.S. budget deficit is dramatized by the fact that foreign ownership of Treasury securities is rising rapidly; recorded private holdings stood at $84 billion as of the end of 1985, and official holdings at $136 billion. But from an economic viewpoint, it is immaterial whether foreign residents buy U.S. government debt directly or whether they lend the money to private U.S. residents who use it to buy government debt.

The big increase in government borrowing after 1980 was not on the whole accommodated by monetary policy. While the total federal debt doubled, the debt held by the Federal Reserve went up by somewhat less and consequently the debt held by the public went up somewhat more. The borrowing drove up real interest rates in the United States, attracting capital inflows from all parts of the world and in all forms. This capital inflow has been made easier by reduced taxes and controls on international capital movements and a general trend of liberalization and innovation. The favorable aspect of the inflow is that by helping to finance the federal deficit it has kept U.S. real interest rates lower than they would otherwise be. The unfavorable aspect is that the counterpart to the record capital account surpluses is the record trade and current account deficits.[61]

The widespread feeling is that these imbalances are unsustainable. The U.S. trade deficit may be politically unsustainable, in the sense that congressmen will be pushed, by those of their constitutents that

suffer from the international competition, into enacting protectionist barriers. This would be very costly for both the country as a whole and the world trading system as a whole.

It is also possible that the borrowing from abroad is unsustainable in the sense that at some point foreigners will tire of accepting ever-larger quantities of U.S. assets into their portfolios. The consequence then could be a sharp fall in the value of the dollar combined with a sharp increase in U.S. interest rates. For the dollar by itself to accomplish enough trade improvement to return the country to current account equilibrium, the depreciation would have to be considerably larger than what we have already seen in 1985 and 1986.

The unpleasant alternative is that the same improvement in the trade balance would at some point instead be accomplished by a recession, reducing imports. The large stock of debt already outstanding means that U.S. policy-making will from now on find itself much more restricted in its ability to respond to adverse developments. Because the federal deficit is already large despite four years of economic expansion, the government will not be able to respond to any future recession by reducing taxes or raising expenditure. Still less will the Federal Reserve be able to respond to a recession by lowering interest rates, if the source of the recession is a reduction in the willingness of foreign investors to keep supplying the United States with capital. Indeed, the outstanding debt to foreigners means that a likely scenario is the one in which investors' fears that the United States will have difficulty maintaining the future value of those assets will cause the depreciation of the dollar to accelerate and interest rates to rise. In such a scenario the Federal Reserve would be reluctant to expand monetary policy because that might further enhance fears of inflation and dollar depreciation. At that point there might be no alternative to a combination of sharply higher interest rates and recession in order to reduce imports and restore the confidence of financial markets. This position, a familiar one to many debtors, would be a new one for Americans.

As of the beginning of 1987, the financial markets are still absorbing the imbalances with little difficulty. The decline of the dollar has been a "soft landing" rather than a "hard landing" in the sense that interest rates have come down since 1984 rather than gone up. This is probably because the dollar depreciation has been the result of a combination of (1) easier monetary policy, (2) perceptions of reduced future budget deficits under the Gramm-Rudman legislation, and (3) a confidence-inspiring process of consultation and coordination between U.S. and other authorities, most dramatically represented by the September 1985 Plaza Accord. The federal budget deficit will decline somewhat in 1987, and probably the trade deficit soon thereafter. But the policies now in place imply continued massive federal deficits, and as a result continued capital inflows and trade deficits, into the indefinite future.

Notes

The author would like to thank Morgan Guaranty, *The Economist Financial Report,* and the Japan Center for International Finance for data; Dan Dorrow, Ken Froot, David Hicks, and Alan MacArthur for some calculations; and Martin Feldstein, Peter Kenen, Richard Levich, and Alan MacArthur for many valuable comments on an earlier draft. Views expressed are those of the author.

1. In table 9.1, the private capital outflow is measured as increases in U.S. "private assets abroad" (which appear with negative signs because they are accounting debits) less increases in other foreign assets in the United States (which appear with positive signs because they are accounting credits).

2. Under the floating exchange rate system, an investor's increase in demand for dollar assets can take the form of an increase in the exchange value of the dollar and does not need to show up as an actual inflow of capital.

3. This figure is arrived at by assuming that the statistical discrepancy represents primarily unreported capital flows.

4. If the statistical discrepancy is interpreted as unrecorded private capital inflows, then the true private capital account was approximately in balance in 1979–80 (a surplus in 1979 for the first time in decades, and a deficit in 1980). The recorded private capital account continued to show a deficit in 1979 and for several years thereafter.

5. See Levich 1985 for a survey of empirical evidence on efficiency in international financial markets.

6. See Levich in this volume, chap. 4, for elaboration on such innovations.

7. Press release, August 20, 1986. The figures have been adjusted to eliminated double counting of transactions between institutions.

8. Press release, Bank of England, August 20, 1986. Tokyo was counted as $48 billion, other Pacific centers have been estimated at $30 billion, and Zurich and Frankfurt together have been estimated as big as New York.

9. The calculation is the average of the bid-ask spread as a percentage of the rate, quoted at 3:00 P.M. daily by Barclay's Bank in London. A Bank of Canada study shows the pound ahead of the mark and yen in bid-ask spreads for 1973–81 (Longworth, Boothe and Clinton 1983, 63).

10. In the London foreign exchange market, the ranking by volume is pound, mark, yen, Swiss franc, French franc, lira, and Canadian dollar. (The sources on 1986 trading volume are the press releases cited above.)

11. Frankel 1984 reports figures on how much of Japanese trade is invoiced in yen. Table 9.11 in this chapter gives the figures for shares of dollars, yen, and other currencies in the foreign exchange reserve holdings of central banks.

12. For a description of Germany's controls, see Dooley and Isard 1980.

13. January 1975–April 1979. The variance of the differential was 3.29. The source is Frankel 1984, 23.

14. The mean differential was 0.26 and the variance 0.22 for the period May 1979 to November 1983 (Frankel 1984).

15. Also, the rate of increase in long-term liabilities abroad fell from $14.759 billion to $7.124 billion. The source is the Bank of Japan, *Balance of Payments Monthly,* as reported in the OECD *Economic Survey* on Japan, August 1985, p. 21.

16. Eurodollar rate, covered, relative to yen gensaki (Ito 1986, 240).

17. Morgan Guaranty, *World Financial Markets,* September 1986.

18. When there is a large and variable differential (even with the offshore interest rate measured in domestic currency) it means that barriers must exist, in the form of either capital controls or the sort of political risk discussed

below. Although there is no surefire way of telling which sort of barrier is operating just by looking at the interest rates, there is a useful rule of thumb. When a country is seen to experience an increase in perceived riskiness, due to high budget or balance of payments deficits or political instability, if the offshore rate rises relative to the onshore rate it signifies that controls are preventing the free outflow of capital; if the onshore rate rises relative to the offshore rate, it signifies that political risk is scaring off investors and so a higher return is needed to clear the market.

19. U.S. corporations issue bearer bonds in the Euromarket. In October 1984, the U.S. government began to do the same, in the form of "specially targeted Treasury notes." The premium that investors were willing to pay to hold these securities, relative to regular registered Treasury notes, fluctuated from around forty basis points to zero, apparently as foreign perceptions fluctuated as to how onerous was a requirement that bond dealers certify that the beneficial owners are not U.S. citizens or residents (Merrill Lynch 1985, 14).

20. However, IBFs remain subject to several important restrictions that do not apply to Eurobanking (Chrystal 1984, 6).

21. One (intended) result of the abolition of the U.S. withholding tax was the demise of large-scale Eurobond issues by U.S. corporations through subsidiaries in the Netherlands Antilles to avoid the tax. This corporate borrowing, which previously showed up in the balance of payments accounts as reductions in U.S. direct investment claims on foreigners, now takes its true form—foreign purchases of U.S. securities.

22. Interestingly, U.S. Treasury securities issued in the Euromarket often must pay a higher yield than Eurobonds issued by top-rated U.S. corporations, suggesting some perceived default risk (Gonzales 1985, table 14).

23. Golub (1986, 8a) estimates that net borrowing in dollars by eighteen OECD governments alone rose from $2.619 billion in 1972 to a peak of $25.852 billion in 1982. Dollar borrowing by developing countries was much greater, at least until recent years.

24. The recorded capital inflow (change in foreign assets in the United States less U.S. assets abroad, not counting official reserve assets) did not turn positive until 1983 and climbed to $99.852 billion in 1985. Most of the statistical discrepancy is thought to be unrecorded capital inflows, hence the higher capital inflow numbers in the text. But some fraction of the discrepancy is probably unreported service exports, particularly interest earnings, so the capital inflow numbers in the text may be a little overstated.

25. The subsequent discussion draws on Isard and Stekler 1985.

26. The borrowing via Netherlands Antilles subsidiaries was reversed, following the abolition in 1984 of the U.S. withholding tax; in 1985, U.S. corporations began retiring the past debt issued through the subsidiaries.

27. The source is the *Survey of Current Business,* e.g., table 1, p. 35, and table 8, p. 50, in the March 1985 issue. Isard and Stekler (1985, 222–23) admit that decisions on how to adjust the data are necessarily somewhat arbitrary.

28. The U.S. figures are from *Survey of Current Business,* June 1986, table 10, p. 65. The Japanese figures are from the Japan Center for International Finance.

29. *Survey of Current Business,* June 1986, table 3, p. 31.

30. For more on foreign direct investment, see Lipsey in this volume, chap. 8.

31. *Federal Reserve Bulletin,* May 1985, p. 279.

32. Ibid., and *Federal Reserve Bulletin,* May 1986, p. 295.

33. Ibid.

34. *Federal Reserve Bulletin,* table 3.15, August 1982 and June 1986. More than 100 percent of this decline in dollar holdings occurred in 1981. Liabilities

to foreign official institutions actually rose from then until 1985. However this rise in dollar holdings can be completely accounted for by interest earnings.

35. *IMF Annual Report,* 1986, table 1.3, p. 61.

36. Central banks make the decision to trade their own currencies for foreign reserve currencies on the basis of macroeconomic considerations. But the decision how to allocate a given portfolio of foreign currency reserves is influenced by expected returns on the various currencies. Admittedly the distinction can be blurred because some countries habitually do their foreign exchange intervention in dollars, perhaps for the sake of convenience. The argument that central bank portfolio behavior is destabilizing is due to Bergsten and Williamson, forthcoming.

37. The argument that official reserve transactions should be classified together with the private capital account validates the decision made by the Department of Commerce ten years ago to cease reporting the "official settlements balance" in the balance of payments statistics, to force readers to look at the trade or current account balances in its place. See Stern 1977. Table 9.9 here compromises, by reporting some net balances within the capital account, both private and official.

38. Kidwell, Marr, and Trimble (1986) document this differential in more detail. But it is possible that the apparent differential is simply due to different composition of the corporations issuing the bonds in the two markets. Maharajan and Fraser (1986), by examining ninety-two pairs of bond offerings that are closely matched with respect to corporate parent, rating, maturity, and other characteristics between 1975 and 1983, test the widespread perception that U.S. corporations can borrow more cheaply in the Euromarket than at home. They find, to the contrary, no differential.

39. For the periods 1980–81 and 1983–84, increases in the interest differentials do not support the safe haven explanation of the dollar appreciation. Similarly, the period when the differentials resumed their decline, 1985–86, is the period when the dollar was finally depreciating, not continuing to appreciate as one would expect under the safe haven hypothesis. Even in 1982, the one year in which movement in the long-term interest differential supports the hypothesis, the evidence from short-term differentials goes the other way, as we saw in section 9.3.

40. The United Kingdom, France, Germany, Italy, Canada, and Japan. The interest rates are yields on government bonds, in their own currencies, with maturities ranging from ten years or more for Japan and Canada to twenty years for the United States and Canada. The weights are moving averages of GNP shares. The source is the International Monetary Fund.

41. Morgan Guaranty's index. The weights are based on 1980 U.S. bilateral trade in manufactures, and the price levels are wholesale prices of nonfood manufactures.

42. The three statistics are simple averages of dollar depreciation against other currencies: the mark, yen, pound, French franc, and Swiss franc in the case of the American Express and *Economist* surveys, and the first four currencies in the case of the Money Market Services survey. For further description and analysis of the survey data, see Frankel and Froot 1986.

43. If arbitrage equates the nominal interest differential to investors' expected nominal depreciation, then the real interest differential will equal expected real depreciation.

44. The peak real interest differential by this measure was 4.2 percent. The expected inflation rates in the figure are calculated by the International Monetary Fund from distributed lags on actual inflation rates.

45. The interest rates are on ten-year bonds from Morgan Guaranty. The trading partners are the United Kingdom, France, Germany, and Japan, weighted by GNP shares. Following the logic of note 43, one might infer from a 1984 ten-year real interest differential of 3 percent that investors must have expected the dollar to depreciate in real terms over the next ten years at an average rate of 3 percent a year, or approximately 30 percent cumulatively. If ten years is thought to be a long enough time to guarantee a return to long-run equilibrium, this rough calculation suggests that in 1984 the market considered the dollar to be about 30 percent above its equilibrium. (Note that investors do not respond directly to real interest differentials, but rather to nominal interest differentials and expected exchange rate changes; Frankel 1986.)

46. Now owned by Morgan Stanley.

47. The average of the four end-of-quarter figures (Frankel 1986, table 2-1).

48. Such bandwagon expectations are supported by survey data at horizons of one week to one month, shorter-term than the survey data shown in figure 9.3c.

49. *Economic Indicators,* September 1986. The Federal Reserve Bank of St. Louis, September 12, 1986, reports 9.9 percent at a compounded annual rate of change.

50. The identity is that investment is equal to national saving plus the net capital inflow from abroad.

51. In this framework, how would we interpret an increase in real interest rates caused by a monetary contraction as in 1980–82? One could think of it as a fall in the private saving rate associated with the recession.

52. Reductions in personal income taxes were more important to the supply-siders in the Reagan camp than the corporate investment tax incentives.

53. Investment net of depreciation shows more of a decline after 1980 than gross investment because the capital consumption allowance is higher in the 1980s than in the 1970s.

54. Bosworth 1985. Feldstein (1986) finds no evidence of an effect of changes in corporate tax rates and investment incentives on interest rates. He estimates that the increase in projected budget deficits was responsible for about two-thirds of the rise in interest rates between 1977–78 and 1983–84.

55. An upward shift in firms' desire to invest could lead to an increase in real interest rates, without an increase in the *quantity* of investment actually undertaken, if the sources of saving available to finance investment were completely unresponsive to interest rates. But even if domestic U.S. saving, both private and public, is indeed unresponsive to interest rates, the available supply of *foreign* saving is to the contrary highly responsive to the U.S. interest rate. Thus the failure of the observed investment rate to rise in the 1980s is valid evidence against the claim that enhanced investment incentives can alone explain the increase in the U.S. interest rate and the capital inflow.

56. U.S. Department of Commerce, British Central Statistical Office, West German Bundesbank, and Japanese Economic Planning Agency.

57. Changes in private or public saving also tend to affect the level of income, when the economy is operating at less than full employment. To focus on the relationship among saving, investment, and overseas borrowing as percentages of aggregate income, it helps to think of monetary policy in the background, holding income constant. It is, in fact, not unrealistic to think of the Federal Reserve as having targeted nominal GNP in recent years.

58. The 1982–84 figures were revised in 1985 to incorporate the results of a 1982 benchmark survey of U.S. direct investment abroad. On the revised figures, the United States passed into net-debtor status in January 1985.

59. The uncertainties are particularly large vis-à-vis Latin America. Much capital flight to the United States is unreported. Furthermore, one might not wish to count the loans of U.S. banks to troubled debtors at full value as they now appear on the books. A 50 percent write-down, for example, would wipe out over $100 billion of claims on Latin America alone.

60. *Federal Reserve Bulletin*, May 1986, p. 294. A separate point is that a precise definition of the term *net debtor* would include only loans and bonds, excluding corporate stock and direct investment. See Van der Ven and Wilson 1986, 11. However, investment income has to be paid to foreign residents not just in the form of interest on the debt, but equally in the form of dividends and repatriated earnings on the rest.

61. From the viewpoint of other countries, the favorable aspect of the capital flow is their trade *surpluses* vis-à-vis the United States, and the unfavorable aspect is that their real interest rates are *higher* than they would otherwise be. Both points are particularly relevant for troubled debtors who must compete with the United States for funds.

References

Bergsten, C. Fred, and John Williamson. Forthcoming. *The multiple reserve currency system*. Institute for International Economics, Washington, D.C.

Bosworth, Barry. 1985. Taxes and the investment recovery. *Brookings Papers on Economic Activity* 1:1–45.

Chrystal, D. Alec. 1984. International banking facilities. Federal Reserve Bank of St. Louis. *Review* (April): 5–11.

Cooper, Richard. 1986. The United States as an open economy. In R. Hafer, ed., *How open is the U.S. economy?*, 3–24. Lexington, Mass.: D. C. Heath.

Dooley, Michael, and Peter Isard. 1980. Capital controls, political risk and deviations from interest-rate parity. *Journal of Political Economy* 88 (April): 370–84.

Edwards, Sebastian. 1986. Country risk and developing countries' foreign borrowing: An empirical analysis of the bank loan and bond markets. *European Economic Review*.

Feldstein, Martin. 1986. Budget deficits, tax rules, and real interest rules. NBER Working Paper No. 1970. July.

Folkerts-Landau, David. 1985. The changing role of international bank lending in development finance. IMF *Staff Papers* 32 (June): 317–63.

Frankel, Jeffrey. 1984. *The Yen/Dollar Agreement: Liberalizing Japanese capital markets*. Institute for International Economics Policy Analyses in International Economics, no. 9. Cambridge, Mass.: MIT Press.

———. 1986. International capital mobility and crowding-out in the U.S. economy: Imperfect integration of financial markets or of goods markets? In R. Hafer, ed., *How open is the U.S. economy?*, 33–68. Lexington, Mass.: D. C. Heath.

Frankel, Jeffrey, and Kenneth Froot. 1986. Using survey data to test standard propositions regarding exchange rate expectations. *American Economic Review* 77 (March): 133–53.

Friedman, Benjamin. 1986. Implications of the U.S. net capital inflow. In R. Hafer, ed., *How open is the U.S. economy?*, 137–62. Lexington, Mass.: D. C. Heath.

Giordano, Robert. 1986. Myth and reality of Japanese influence on the U.S. Treasury securities market. *Economic Research,* September/October.
Golub, Stephen. 1986. Foreign-currency government debt, asset-market equilibrium and balance-of-payments equilibrium. Swarthmore College. September.
Gonzales, Ernesto. 1985. The international dollar bond market. Applied Business Project, New York University. May.
Isard, Peter, and Lois Stekler. 1985. U.S. international capital flows and the dollar. *Brookings Papers on Economic Activity* 1:219–36.
Islam, Shafiqul. 1987. America's foreign debt: Is the debt crisis moving north? Institute for International Economics, Washington, D.C. February.
Ito, Takatoshi. 1986. Capital controls and covered interest parity between the yen and the dollar. *Economic Studies Quarterly* 37 (September): 223–41.
Kidwell, David, M. Wayne Marr, and John Trimble. 1986. Domestic versus Euromarket bond sales: A case of issuing arbitrage. Tulane University. August.
Levich, Richard. 1985. Empirical studies of exchange rates: Price behavior, rate determination and market efficiency. In R. Jones and P. Kenen, eds., *Handbook of international economics,* 2:979–1040. Amsterdam: Elsevier Science Publishers.
Longworth, David, Paul Boothe, and Kevin Clinton. 1983. *A study of the efficiency of foreign exchange markets.* Ottawa: Bank of Canada.
Maharajan, Arvind, and Donald Fraser. 1986. Dollar eurobonds and U.S. bond pricing. *Journal of International Business Studies* (Summer): 21–36.
Merrill Lynch. 1985. Specially targeted treasury notes revisited. *International Fixed Income Strategy* 1 (May 28): 14.
Ransom, Roger, and Richard Sutch. 1983. Domestic saving as an active constraint on capital formation in the American economy, 1839–1928: A provisional theory. University of California Project on the History of Saving, working paper no. 1. University of California, Berkeley.
Stern, Robert. 1977. The presentation of U.S. balance of payments: A symposium. Princeton Essays in International Finance, no. 123.
Van der Ven, Guido, and John Wilson. 1986. The United States international asset and liability position: A comparison of flow of funds and Commerce Department presentations. International Finance Discussion Papers, no. 295. Washington, D.C.: Federal Reserve Board.

2. *Saburo Okita*

Domestic Economic Policy and International Capital Flows

In the twenty years from 1961 through 1980, Japan's international balance of payments current account was in the red about as many years as it was in the black—eight years in the red and twelve in the black. Our trade statistics were in the red for eleven yers and in the black for nine. Yet since the early 1970s, the tendency has been for the current account balance to run consistently in the black, as pointed out by Hendrik Houthakker, then a member of the President's Council of

Economic Advisers. Nevertheless, the oil crises of 1973 and 1979 sharply increased Japan's oil import bill and broke the string of consecutive surplus years. Since then, the Japanese economy has recovered from the oil crises and, with the help of the recent slippage in oil prices, recorded annually increasing surpluses in its current account. Still, surpluses are a very new situation for Japan, and one that we are unaccustomed to dealing with.

In 1981, Japan's current account surplus was $4.8 billion. In 1985, this had risen tenfold to $49.2 billion, and in 1986 it was $86.0 billion. United States economic policy must be cited as one of the causes of this surplus. Whereas the United States achieved a real economic growth rate of 6.5 percent in 1984 through running massive fiscal deficits and spurring domestic consumption, the combination of this stimulative policy and a policy of maintaining the dollar's exchange strength meant that the United States drew increasing imports from Japan and the rest of the world.

On the other side of the Pacific, the Japanese savings rate has been high for a long time, approximately 20 percent of personal disposable income going to savings for many years now. In the period of rapid growth from 1960 through the early 1970s, this high Japanese savings rate was absorbed by an equally high rate of investment, and the balance between savings and investment was maintained. Yet in the early 1970s, notably in the wake of the 1973 oil crisis, the Japanese economic growth rate fell from 10 percent to only 5 percent on average for the 1970s and 3 percent to 4 percent in recent years, while the savings rate showed little if any decline, with the result that Japan has run chronic savings surpluses.

Going into the 1980s, this savings surplus contributed to a sharp increase in the outflow of capital from Japan, and Japan has been the world's largest capital-exporting nation since 1985. According to Bank of International Settlements statistics, the total overseas assets of Japanese banks were $1,019.4 billion as of the end of September 1986, easily outpacing the United States, the United Kingdom, and West Germany to account for 31.5 percent of the balance outstanding in international financial markets.

Anticipating this, *The Economist* published an article titled "A New Japan" on October 13, 1983, saying that "the third western muddle over Japan's current-account surplus is mirrored in a deficit on the capital account, which means that more Japanese savings are being invested abroad than foreigners are investing in Japan. Excellent. The second biggest capitalist economy ought to be a capital exporter. Since countries first learned how to help each other grow, the rich have been lending to the poor. Nineteenth-century Britain ran a huge current surplus every year, had nil inflation (indeed, a 10 percent fall in retail

prices over the period 1860–1913), and thus invested at cheap interest rates in backward places like California and Canada."

The United States was also an important capital-exporting nation from the end of World War II until recently. Such programs as the postwar Marshall Plan (the European Recovery Plan) and capital exports to countries throughout the world were a major pillar of support for global economic development after the war. Although Japan's current account surplus is expected to decline with the yen's appreciation since early 1985, the high Japanese savings rate and the decline in domestic investment opportunities suggest that Japan will continue to be a major capital exporting nation for some time to come.

Japanese domestic economic policy since the war has been one of promoting recovery and economic growth. In 1960, a plan for doubling national income was drafted, with myself directly responsible as head of the Planning Bureau in the Economic Planning Agency. We proposed five main tenets underlying this plan. As MIT's Lester Thurow wrote on this plan in 1982 in the proceedings of a symposium, The Management Challenge: Japan's Views, convened to assess Japan's postwar economic performance, "Consider the five elements in the Japanese economic strategy at the beginning of the income-doubling decade: strengthen social overhead capital, push growth industries, promote exports, develop human ability and technology, and secure social stability by mitigating the dual structure of the economy. This list could easily serve as strategic objectives for the American economy by the year 2000."

On the fourth objective, that of developing our human resources and promoting science and technology, the Ministry of Education initiated a project to sharply expand technological education in Japan in line with this income-doubling plan. In the past, plans for upgrading the industrial structure had focused on promoting heavy industry. In steel, for example, crude steel production went from 22 million tons in 1960 to 118 million tons in 1973. Yet with the oil crisis, there was a shift to energy conservation, and the Japanese industrial structure shifted from one centered on heavy industry to one centered on science and technology, with particular emphasis on electronics and other precision industries. In Japan, this is termed the shift from ju-ko-cho-dai (heavy, thick, long, and big) to kei-haku-tan-sho (light, thin, short, and small). Looking again at steel production, output was down to 98 million tons in 1986 and is still declining with the yen's appreciation.

Fiscal policy has also undergone a change. Until the early 1970s, policy was to keep the budget balanced. Yet with the 1973 oil crisis, the Japanese economy recorded its first negative growth since the war. Prime Minister Fukuda's administration responded by issuing deficit-financing national bonds to avert a recession. Since then, the fiscal

deficit grew steadily, reaching one-third of general budget expenditures in 1977. Alarmed at this trend, the Japanese government turned to budget austerity, and the belt-tightening efforts have brought the general budget's dependency on deficit financing down to 21.4 percent in 1986. While the fiscal policy of deficit spending did serve to alleviate the domestic economic impact of the oil crises, it also burdened the nation with massive debt service payments. As of the end of March 1986, the ratio of national bonds outstanding to GNP was 41.9 percent, and national debt service has topped 20 percent of general account expenditures for 1986.

On monetary policy, the emphasis has been on holding interest rates down, in part because of the potential exchange rate impact of capital flow responding to interest rate differentials, with the result that the official discount rate has been lowered several times in recent years. The latest cut, on February 23, 1987, has brought it down to a record low 2.5 percent.

Looking at recent trade trends, Japan recorded a $86.0 billion current account surplus and a $92.7 billion trade surplus, and had a net long-term capital outflow of $131.8 billion in 1986, despite the yen's rapid appreciation against the dollar. Most of these increases were due to the fall in oil prices and the J-curve effect as the yen appreciated. While dollar-denominated exports were up 19.1 percent over the previous year, yen-denominated exports were down 15.9 percent and export volume was down 1.2 percent. There has not only been a drop in the value of exports with all of the deflationary consequences that entails; there has even been a decline in export volume. On the import side, imports were down 2.3 percent in dollar-denominated terms and down 30.6 percent in yen-denominated terms but up 12.5 percent in volume terms. These figures are largely explained by the fact that the collapse in oil prices has resulted in a savings of over $30 billion in Japan's oil import bill.

According to U.S. statistics, the United States' trade deficit with Japan went from $49.7 billion in 1985 to $58.6 billion in 1986. Yet during the same period, the United States' global trade deficit went from $148.5 billion in 1985 to $169.8 billion in 1986, the deficit with Japan continuing to account for approximately one-third of the total. In the bilateral trade between Japan and the United States, even as total U.S. exports were declining from $233.7 billion in 1981 to $217.3 billion in 1986, exports to Japan rose from $21.8 billion in 1981 to $26.9 billion in 1986. Likewise, the ratio of manufactures to Japan's total imports from the United States also rose, from 45.3 percent in 1981 to 60.7 percent in 1986. During the same period, manufactures' share of total Japanese imports rose from 24.3 percent in 1981 to 41.7 percent in 1986. It would thus appear that there is a very good chance that the impact of currency

exchange rate adjustments will result in shrinking both Japan's surplus in its trade with the United States and its overall current account surplus in 1987 and beyond. Government estimates predict an $11 billion smaller current account surplus in fiscal 1987.

The Maekawa report (formerly the Report of the Advisory Group on Economic Structural Adjustment for International Harmony) of April 1986 argued that Japan needs to restructure its economy from growth dependent on external demand to growth dependent on domestic demand. Already the estimate for fiscal 1986 (the year ending March 31, 1987) is for real economic growth of 3.0 percent, of which domestic demand is expected to contribute 4.2 percent and net exports minus 1.3 percent. In the forecast for fiscal 1987 too, the prospects are for 3.5 percent real growth, with domestic demand contributing 4.0 percent and exports minus 0.5 percent. The Japanese economy is clearly shifting to growth powered by domestic demand rather than by exports. Among the factors contributing to this shift are the fact that fiscal policy has made an effort to expand public works, including those by local governments and those under the government's fiscal investment and loan program, and the fact that lower interest rates have stimulated housing investment and capital investment in the nonmanufacturing sector.

Even with all the best efforts that can be made to promote imports and to spur domestic demand, however, Japan will continue to record substantial current account surpluses for some years to come. And while currency exchange rate adjustments are important, there is a limit, economically and politically, to what they can achieve. According to the *Nihon Keizai Shinbun*'s world economic model, Japan's net overseas assets will top $1 trillion by 1997, while the United States' accumulated debt will also approach the $1 trillion mark. As David Hale summarized in the December 5, 1986, *Times* of London, "The U.S. is a debtor nation with the habits of a creditor nation: Germany and Japan are creditor nations with the habits of debtor nations."

The questions for the future of the Japan–United States relationship are therefore what political and economic impact these economic imbalances and outdated perceptions will have on the relationship and whether or not there might be some poliical means of braking the imbalance before it gets out of hand. One question here is whether the U.S. effort to turn its trade deficit into a surplus as described by Martin Feldstein should depend solely on exchange rate adjustments or whether more direct quantitative controls over imports, such as voluntary export restraints or import quotas, for example, should be used alongside these exchange rate adjustments.

As seen, there is a very strong likelihood that Japan will continue to be a major capital exporter. The United States, formerly a major

source of development capital, is now a major debtor nation, a black hole draining savings from Japan, Europe, and the rest of the world. If we leave the flow of capital to laissez-faire market mechanisms, the bulk of the capital will be drawn to the United States in search of investment security and high interest rates. Conscious policy measures, including risk insurance and interest subsidies to offset the low-interest and long-term nature of the return, are needed if we are to divert at least some of this capital flow to the developing countries. Responding to this need, the World Institute for Development Economics Research (WIDER), established in Helsinki under the auspices of the United Nations University, released a report in April 1986 titled "The Potential of the Japanese Surplus for World Economic Development" and drawn up by WIDER director Lal Jayawardena, WIDER adviser on international economic issues and IMF executive director Arjun Sengupta, and myself as chairman of the WIDER governing board. Subsequently, I sought to give these ideas wider currency with a July 2 contribution to the *Nihon Keizai Shinbun* titled "Using Its Surpluses to Advantage: A Proposal for Enhancing Japanese and World Security." The thrust of this proposal is that "given (i) the imperative that Japan find ways to utilize its high savings rate and massive trade surplus effectively for Japanese and world economic development and (ii) the fact that a serious effort by the United States to reduce its fiscal and trade deficits would have a deflationary impact on the world economy, the author proposes that Japan use its surplus one third each for stimulating domestic demand, providing development capital for the developing countries, and supplying capital to the United States and the other industrialized countries."

In November, as follow-up to this first WIDER report, a second report was released simultaneously in Tokyo and London titled "Japan Urged to Lead in Tackling International Economic Problems."

Among the main problems facing the world economy today are the major current account surpluses in Japan and West Germany, the twin fiscal and trade deficits in the United States, the developing countries' external indebtedness, and stagnating commodity prices. Although there are a number of issues outstanding among and between the United States, Europe, and Japan, these should be solved not only with bilateral negotiations but with active policies to revitalize the world economy, including the developing countries. These issues are all interrelated. For example, one of the causes of the United States' trade deficit is that the Latin American countries, long a major market for the United States, have had to cut back on imports because of their burgeoning debts. Most of the countries of Asia, with a few notable exceptions such as the Republic of Korea and Taiwan, are finding it very hard

going in the face of slow growth in the industrial countries, protectionism, and lackluster commodity prices.

It is to be hoped that these problems will be solved with the emphasis on growth. In so doing, it may be necessary for Japan to formulate its own "Marshall Plan" for the developing countries. One problem here is that the surpluses are entirely in the hands of the private sector. The government of Japan is moving to recycle its current account surplus to the developing countries with subscriptions to the Asian Development Bank, the IMF, the World Bank, and the IDA, but these efforts should be stepped up. Although the present state of Japanese government finances does not leave much leeway for increased expenditures on top of its plan to double official development assistance (ODA) in the seven years 1987 through 1993, there is growing support in Japan for having the government provide incentives to encourage the outflow of private sector capital to the developing countries.

There must be a global approach to these issues, and it must include effective utilization of our financial resources and the full mobilization of our intellectual resources. One first step might be for the World Bank, for example, to take the initiative in appointing a World Commission for the Revitalization of the World Economy to write a prescription for world growth. Another possibility is for the group of economists to look into the impact on the global economy of U.S. adjustments for turning the trade deficit into a surplus as prescribed by Feldstein and to make the necessary policy recommendations. The urgency of the issue allows no delay. It is imperative that we act today to fend off a tomorrow of bilateral protectionism, spreading recession, and impoverishment for all.

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3. Peter G. Peterson

Deficit, Debt, and Demographics: Some International Aspects

Let me go back to August 15, 1971, when a bunch of us were out at Camp David closing the gold window, among other things. The view of exchange rates at that time as I look back on it was a bit simplistic, in terms of what has happened since. We had the view that, if we could just have flexible exchange rates, that somehow the balance of payments, by which I think we really meant the balance of trade, because that is what was politically hot, would get equilibrated painlessly. Now

ten to fifteen years later, we are confronted with the largest trade deficit in the history of the United States, the largest current balance of payments deficits in the history of the United States, and the strongest dollar in the history of the United States, all of these events happening simultaneously. I can tell you almost with certainty that no one at Camp David in 1971 could have even imagined those events happening simultaneously.

What we had not predicted was the magnitude and speed of the capital flows that now, various estimates tell me, are forty times the trade flow. We were a group of people who were more or less dominated by the relationships between exchange rates and trade, not between exchange rates and capital movements.

Now we are confronted with the situation in which foreign capital flows are interacting in a very interesting way with our own economy and are financing about 60–65 percent of our deficit. If they had not been available, the results, I am persuaded, would have been totally different.

We just were not thinking, fifteen or twenty years ago, about anything like this level of fiscal imbalance, or international imbalance. Now, I am not going to talk about domestic deficits. I have been railing about them for about five years; I am persuaded they are near the center vortex of many of our other problems. Rather than being "Peter One Note" again, I thought I might focus more on the foreign aspect of the deficits.

Table 9.16 presents one scenario of foreign debt and interest projections. In 1971, U.S. investment income, interest income, and so on would have been much higher than now in real terms. Therefore, while we may have gotten upset about a $7 billion trade deficit, we had all the means in the world to finance it.

Look out to 1990 and notice that with a $600 billion foreign debt, our net U.S. investment income is estimated at about $20 billion. And we might have interest costs of about $40–50 billion. And that is only

Table 9.16 **Foreign Debt and Interest Projections (billions of dollars)**

	1980	1985	1990
U.S. net foreign debt (net investment position)	$+106.1	$−93.5	$−600
(1) Net U.S. investment income	+28.5	+12.9	+20
(2) Interest income or cost	+1.9	−2.7	−48
Total net "income"	+30.4	+10.2	−28

Source: Institute for International Economics.

Notes: U.S. and OECD growth: 3.0 percent; LDC growth: 3.75 percent; dollar at level of September 27, 1985.

1990. We are left with the unpleasant question now of how we are going to finance those debt service costs.

I have also studied projections that go out further. If we reduce our current account deficits to only $75 billion for another five or ten years, we hit a trillion dollars of debt before long, and interest payments get even higher. So in Herbert Stein's immortal words, if something's unsustainable, it tends to stop. One of the important questions is how it is going to stop, not whether it is going to stop.

Look at the trade account, because clearly that is the place we must look to finance these debt service costs. I remind you of two or three obvious sectoral points. First on the question of oil. Remember that about 38 percent of our domestic consumption comes from foreign sources; the estimates for the next decade range from 50 percent to 70 percent of our domestic consumption. The odds certainly favor that prices will likely go up with demand. So, in the oil sector of our trade account, I do not see how any prudent person can do anything but assume that the oil import bill will go up substantially.

I look with embarrassment at Bruce Atwater and John Block, as I try to predict the agricultural aspect of things, but clearly there has been something approaching a systemic or structural change in the production of grains around the world. Other people have learned how to produce them far more efficiently and quickly than we thought they could. A number of us just came back from the Soviet Union, where we visited at length with General Secretary Gorbachev, among other people, and even he had the courage, or chutzpah, to announce that it was his objective to become a net exporter of food. So et tu, Brute, I said, as I listened to that.

So that leads, with all due respect to what Lionel Olmer and Hank Greenberg were saying this morning about services, to the manufacturing sector (and I do not know how much nourishment we might get there) as being the principal place we might look. To give you an idea of what the historians will call a wrenching distortion to our industrial structure: It was five years or so ago that we had a surplus in our manufactured trade accounts of probably $20 billion, and this past year we probably have a deficit of around $140 billion in our manufactured accounts.

We have had a swing that amounts to 15–20 percent of our entire capacity, probably 4 percent of the GNP. Now we are about to say that we must move into a trade surplus in the face of the oil situation I mentioned. If you look at it numerically, you could get to a number that might achieve some balance, probably a swing in the manufactured accounts of something like $200 billion.

That $200 billion swing is what occasioned my comment on the first morning as to why there is an essential asymmetry between hearing

other important nations in the world economy saying that they must increase exports very rapidly while at the same time we, the world's leading industrial power, are making exactly the same observation. The case therefore for Germany and Japan and others stimulating domestic demand, while it is presented often as helping us in the world economy, can be easily rationalized in terms of "they better do it for the sake of their own economies, given the inevitable drop in our trade deficit."

I have heard at least as many scenarios as there are people in this room, and I am not going to get into the projection business. For the benefit of some of you who do not follow this too carefully, there are roughly three categories of scenarios: One is the so-called crash landing, in which there is a sudden loss of foreign confidence and a sudden drop in the dollar. There is then a combination of rapid inflation as the dollar plunges and recession or worse as interest rates soar. This in turn detonates the third world bomb, because you have got the combination of slow growth and very high interest rates. And if that is not enough to cheer you, a protectionist America responds to that series of phenomena. That is the crash scenario.

Another scenario that is worth looking at is the so-called stop-and-go British scenario in which one looks at the British economy not so much from the vantage point of the slow gradual decline in productivity that began in the late 1800s, but in the more recent response of the economy that was constrained by balance of payments problems. Britain in the post–World War II period was endlessly subjected to the whims of foreign confidence and foreign inflows. Their industrial structure was subjected to the yo-yo effects of the pound and surges of imports. Michael Stuart, a British economist, recently said, "anyone who has lived through our forty years of balance of payments crises and seen the constraints they have imposed on domestic policies must stand amazed at the insouciance with which the United States is piling up foreign debt."

Finally, there's the muddling-through, gradual-decline scenario which leaves us poorer than we could have been.

All of them are rude scenarios that are not very happy. All of them confront the fact that we must repay our debts in one way or another, that we have been consuming far more than we have been producing, and that we are going to have to start producing far more than we consume. That is a rude fact that the American people are really not prepared to confront at the present time.

I now want to say a word or two about foreign policy implications, which we have only alluded to until now. We are facing a country that for the first time is going to be seriously constrained by a lack of resources. I will give you three or four quick things to reflect on if you have not already done so.

I guess Corazon Aquino is as close to the counterpart of Ronald Reagan at the height of his popularity as anybody. The Philippines is about as bipartisan a foreign country as we have in terms of support and its relationship to our national security. Aquino gives what some senators and congressmen have told me is the best speech that has been given in quite a few years in terms of its response. Yet the way we had to grovel around to find $50 million for such a high priority foreign policy objective as that is significant.

As to our friend Mexico, one could make an elegant case that our true national security interests could be very much enhanced by some kind of substantial program with Mexico that would include bilateral aspects in many areas—investment, trade, and so forth. But I am not sure there are many politicians around in the context of Gramm-Rudman who are going to be engaging in innovative new ventures, however important, in foreign policy.

Look at the third world debt problem. I am deeply impressed with James Baker in every way and with his program. But the issue of how we are going to fund any level of program has not yet really touched our consciousness. I chaired a commission for Gerald Ford on federal pay. I recall with great interest seeing a survey of American opinion on "where do you want to spend more money and where do you want to spend less money." The only one that ranked below paying public officials more was foreign aid. And that was in a different context than the current one.

Let's take foreign military forces in Europe. After the (adventure or misadventure, as you see it) in Rejkjavík, when it was pointed out to some of our officials that, in the zero nuclear world they were hypothesizing, we would have substantial vulnerability to the Soviet conventional forces that were far superior to ours, I was amazed to see one of our senior government officials allege that we can afford to spend in a $4 trillion economy whatever we need to spend on defense. I am sure in a rational sense that is true. But as a practical political matter, I wonder what would happen if after that negotiation someone suggested that the United States should spend another $25 billion, or $30 billion, or $40 billion in Europe because it enhances Europe's security. I think that is a nonevent, as we say.

So the overwhelming question in the next decade is where do we find the resources, not simply the resources to pay back this debt service, but the resources to invest in our economic future, because any view of the future that I have been able to think about involves a desperate need to invest much more in human resources and infrastructure. We must rely heavily on our own domestic savings, in view of what I said earlier about the inevitable fall of the trade deficit, and the capital flows that are going to go with it. The reason some of us

have been so concerned about the budget deficit is that it is clearly the biggest source of negative savings around, and it is the surest place to get increased savings. Because as I look at all of the studies on the effect of taxes on increased savings, I find the results fairly uncertain and hard to predict. So deficit reduction is a big source of savings and a sure source.

Where then do you look for these resources? It seems to me you look abroad and then you look at home. Let's start abroad. That is going to require a level of macroeconomic coordination and burden sharing that is utterly unprecedented and probably very difficult.

Let's start with NATO. It is impossible for me to visualize the next ten years, with the kinds of constraints we are talking about, where the subject of what we are going to do to reduce the NATO burden does not become a very high priority item. How we maintain the alliance while doing that is an important issue.

I recently came back from the Soviet Union. We talked to their top military officials, their top arms control officials, and so forth. In addition to having some fascinating discussions about SDI and how it looks to them and so forth, there were intensive discussions about their possible interest in reducing 25 percent of their conventional troops from the Urals to the Atlantic, and when General Jones and Harold Brown pressed them on whether they would destroy equipment, whether they would demobilize, whether they would be willing to verify, the answers to those questions were yes. Now whether they actually would or not is another question. But the point I am trying to make is that I find when talking to foreign policy people about the role of resource constraints on foreign policy that we are treated in a very unhappy way, as though Why would you ever want to play around with troops in Europe? Why would you ever want to upset a balance of that sort that has worked pretty well? Why would you ever want to seriously discuss negotiations with the Soviet Union in which you might be talking about one of your objectives being to reduce the resources that are allocated to that purpose?

And my response to that is threefold: In the first place, we need resources. The resources we have allocated there are not going to be available to be invested in other areas that are going to be of great importance to the future of this country. Second, we can either reduce these resources on a planned reciprocal basis, keeping in mind our national security interests, or it can be done because of some external event like a financial crisis, in which our security interests are not protected and in which the reductions are not on a reciprocal basis.

I just wanted to make the point that I think the foreign policy aspects of this deserve a lot of thought, and I am not sure they are getting that thought.

On the economic peace-keeping side, James Schlesinger has pointed out that post–World War II, we were the biggest supplier of capital, the guys who financed the multilateral institutions. I think this was one of our proudest moments because it helped with the peace as well as the war.

Where are we today? Japan talks magnificently about how they have made commitments of another $2 billion or $3 billion, spread over some period of time, and we should accept that with gratitude. But in an area of limited resources, if we aggregate what we might call the military and economic peace-keeping burden together, and they are both burdens, we would hit about 7 percent or thereabouts, if we added aid plus the military. If we take Japan's military plus aid, it is about 1.5 percent of GNP. That spread of 5.5 percent of GNP happens to be about 50 percent more than our total investment, net, in business-productivity-enhancing equipment, just to take one number.

We ought to be talking about some kind of division of labor, or division of burden, on a much larger scale than we have been.

Now as far as the United States is concerned, we have heard a lot at this conference about the third world debt, how it is going to require resources. I am not sure the United States will participate in a big way in that; I am not even sure it should, given its burdens; Japan (it seems to me to some extent) and Europe must step in to this. Saburo Okita has always been ahead of me, and he certainly was today; I was going to timidly suggest that instead of talking about 1 percent or 2 percent, we ought to sit down with Japan and talk to them in larger terms, like perhaps adding another 1 percent or 2 percent of the GNP at least over this period of time. But as I calculate the number, Okita suggests one-third of the $75 billion being contributed to multilateral institutions. That is an order of magnitude beyond anything that is being discussed, and it is the appropriate order of magnitude.

That is going to raise some interesting questions in Washington because we are highly ambivalent. We want all the perquisites and all the appearances of being a post–World War II superpower. But alas we are not quite willing, nor do we have the resources, to step up to it.

The other place we can get resources is obviously at home; we should look at consumption generally, and subsidized consumption in particular. Let us look at four charts that focus on the entitlement programs, the transfer payment programs that go to the unpoor, that account for about 40 percent of the budget. They have been going up 10–15 percent a year. Figure 9.7 shows that during the seventies the real dollars going to defense went down. That made it possible for domestic spending to go up painlessly without having to increase taxes. Now we are confronted with making up for that, and the crunch is on.

We continue to insist that Social Security is not part of our problem, but figure 9.8 gives an idea of the dominance of Social Security as a

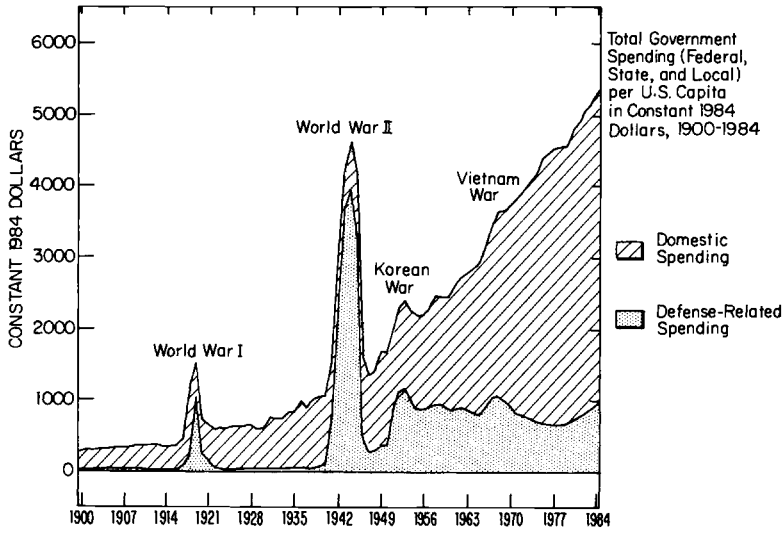

Fig. 9.7 Real public spending per capita: Are we mobilizing for "domestic" warfare?

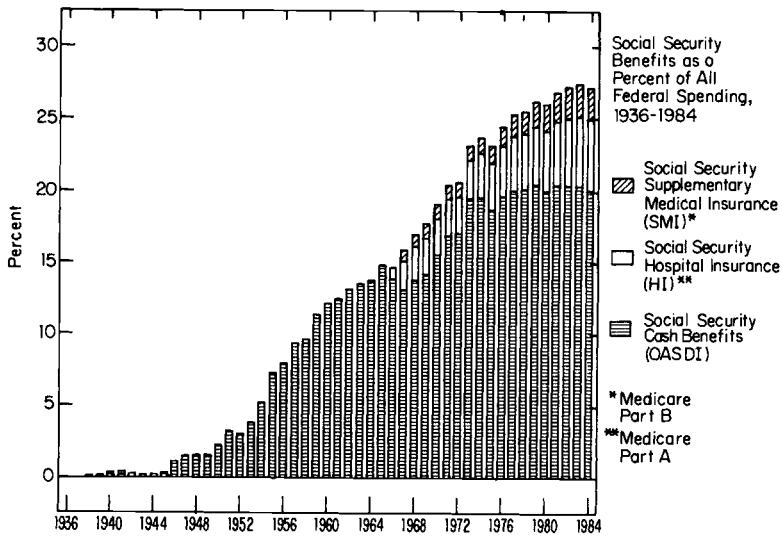

Fig. 9.8 Forty years of Social Security: How much more growth is yet to come?

source of our spending in this country. Now look at figure 9.9, because as they say these days, "you ain't seen nothing yet."

I do not know how many of you are aware, many of the economists are, that the Social Security department has three estimates they use to project future costs of Social Security. One is called optimistic, case one, which I would call hysterical. The second is called—they are now using something called II-B—intermediate pessimistic, and who could object to that! And then finally, there is something called pessimistic. In here I have put all of the estimates that are being used. For those of you who wish to look at them, they are enormously important for predicting the future.

In the so-called intermediate case, the number of babies being born per woman is projected to go up about 10 percent to 12 percent. This is in the face of the fact that there are eleven industrial countries that have a lower birth rate than we do, and a number that are even below 1.6, which is the pessimistic case. I have shown these estimates to a group of people without telling them what they are, and typically most people look at the pessimistic case and say that sounds about right for planning purposes.

Figure 9.10 shows what the pessimistic case forecasts, given the demographic explosion, and in particular the explosion of the over-eighty-five-year-olds. It shows the modest result that our children would have to pay 42 percent of their pay just to finance the Social Security system. This is a projection that could never happen in terms of the

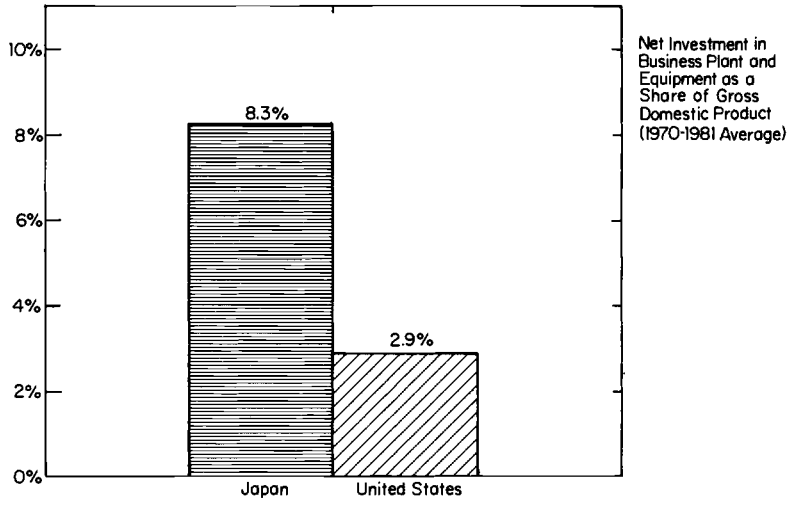

Fig. 9.9 Business investment—the fundamental disparity.

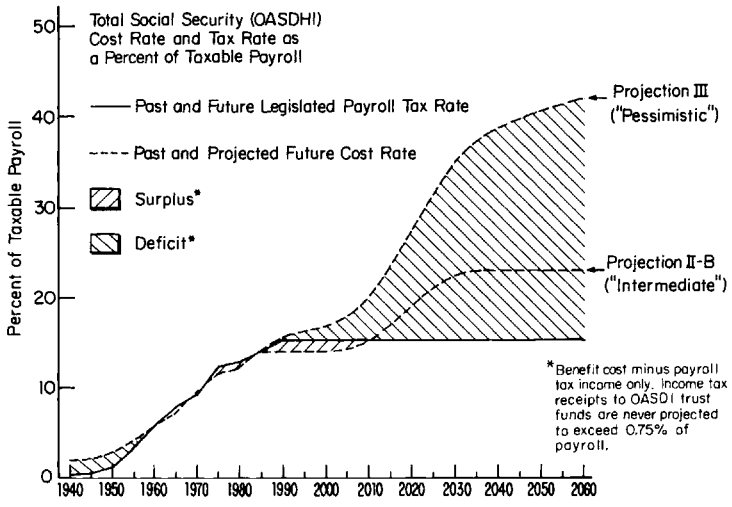

Fig. 9.10 Social Security: both the "likely" and "pessimistic" scenarios are terrifying.

economy and in terms of policy. But this is where this so-called untouchable program might be leading us.

The so-called intermediate case calls for 22 percent of payroll. James Capra has done some projections using the pessimistic case and leaving defense spending where it is. It is clear this case cannot work because by the year 2025, interest costs get hysterical when you let deficits of 5 percent of the GNP pile up (see table 9.17).

With existing rules, it would take an additional 7.5 percent of the gross national product just to cover non-means-tested entitlement programs. This is without thinking about the unfunded liabilities. I submit to you that anything remotely like that is simply not affordable, given a country that has to focus on the investment side.

I will end with one further note. I wonder if sometime the NBER might organize a conference around the politics of economics. I have a feeling that the real problem in our country is that we do not have a long-term deep, stable economic consensus of what the elements are of an economic policy. For example, in Germany and Japan there is a wide-spread political consensus on the elements of economic policy, arising out of the inflation, out of Hitler, and so forth. Japan obviously has a deep commitment to savings and investment.

In our country, people say we have a consensus about economic policy, but I find it remarkably fickle. We talk about capital formation, both sides of the aisle, without talking about consumption. We had supply-side economics in 1980, but by 1986 we ended up with demand-

Table 9.17 **Federal Revenues and Outlays as a Percentage of GNP, by Fiscal Year**

	1988	2000		2025	
		II-B	III	II-B	III
Revenues					
Individual	8.6	10.0	9.8	13.9	13.0
Corporate	2.0	2.0	2.0	2.0	2.0
Social Security					
Retirement and disability	4.9	4.9	4.9	4.7	4.6
Hospital insurance	1.3	1.3	1.3	1.2	1.2
Other	2.3	1.6	1.4	.8	.7
Total Revenue	19.1	19.7	19.4	22.4	2.13
Outlays					
Defense	6.6	6.6	6.6	6.6	6.6
Means-tested benefits	2.1	1.9	2.0	1.6	2.2
Medicaid	0.6	0.6	0.7	0.8	1.2
Other means-tested benefits	1.5	1.2	1.3	0.9	1.0
No-mean-tested benefits	9.2	9.2	10.2	12.0	16.7
Social Security	6.3	6.3	7.0	9.1	12.3
Retirement and disability	5.0	4.5	4.8	6.3	7.3
Hospital insurance	1.3	1.8	2.2	2.8	5.0
All other	3.1	2.8	3.3	2.9	4.5
Grants, operations, and subsidies	2.5	2.4	2.4	2.3	2.5
Interest	4.2	7.6	8.4	20.4	35.5
Total Outlays	24.7	27.7	29.7	42.9	63.5
Deficit	5.6	8.0	10.3	20.5	42.2

Source: James Capra, Senior Economist, Shearson Lehman Brothers; Consultant, Bi-Partisan Budget Appeal.

Notes: II-B and III with current nominal interest rates (8 percent); defense constant as percentage of GNP; "prudent case" starting point in 1988.

side economics. We are now talking about competitiveness; the only question is How big is the grab bag and how long is the list?

The one thing these policies all have in common is that they all avoid the underlying fundamental of what I am talking about, which is essentially the consumption, savings, investment choice. And we talk about how we can solve this problem by ignoring the main element of the problem.

What to do about it, I do not know. There are two approaches that have been used in the past politically. I went to a diet doctor a number of years ago. He said, "you've been on a lot of diets." And I said, "yeah, I've been on a lot of diets," and I weighed about thirty pounds more then than I do even now. He said, "Mr. Peterson, I can tell you

that people have trouble sustaining denial, sustaining negative visions. And what you need is a positive vision that you have become committed to." So I said, "well fine, what does that mean exactly?" He said, "well, until you decide what you want to weigh and what you want to look like, we aren't going to be successful." So he walks me over to a mirror that was like one of those mirrors you see in county fairs, and he has a dial in it. He says, "you weigh 211 pounds now and you said you want to weigh 175." So he dials in 175 pounds, and there is this magnificent lean vision. He says, "I want you to look at that for about 5 or 10 minutes, and then I want that image in your head. Every time you sit down and eat I want that positive vision. And then you'll say that's what I've decided to look like."

So that is one way we can do it, I guess. If we could sell the American people some positive vision.

The other is the fear of a crisis, which seems to have energized Japan and Germany. I do not know which of those it is going to take, but I suspect that we can spend days looking at numbers and agreeing on the seriousness of the problem, but until we put equivalent time into changing the politics of this country, we are going to be sitting here having conferences for years.

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4. James R. Schlesinger

Domestic Policies and International Capital Flows

I intend to put forward certain propositions that some of you may regard as heretical. In uttering these mild heresies I shall be following in the path of my own great mentor of nearly forty years ago, J. H. Williams of Harvard. Williams entitled his AEA presidential address "An Economist's Confessions." In it Williams indulged in those doubts and heresies that were his hallmark. My own remarks will be not so much the confessions of an economist as those of a sometime government official.

At the outset I wish to make three preliminary points. The first point is a trite one, what has become a commonplace observation: the international economic system has in recent decades become dominated by capital flows. In this there is a deep irony. The theory of international trade (and even more clearly the policy reflexes about international trade), as it has come down to us, is erected on Ricardian foundations. But Ricardo scarcely acknowledged the existence of capital flows. Thus,

we face the paradoxical situation that what became first the major equilibrating mechanism and then the dominant element in international trade was itself not incorporated in the original theory in international trade.

Ricardo himself thought of the factors of production (land and labor, rather than capital) as relatively fixed among nations. Trade, reflecting comparative advantage, was based on these more or less permanent endowments. Thus, comparative advantage itself was more or less permanent. By contrast, when we introduce capital mobility as the major element in determining the evolution of the international economy (and even more so when capital flows become the dominant element in international transactions), then the basis for the Ricardian formulation disappears. Comparative advantage is no longer permanent, but is strongly influenced by the flow of capital. Comparative advantage—and thus both the composition and the level of a nation's trade—may be highly transitory.

The new equilibrating mechanism, international capital flows, can be and intermittently will be highly disruptive. From time to time we see the torrential movement of capital, reminiscent of the "hot money flows" of the thirties. In its extreme form we see that torrential movement of capital known as capital fight. Need one observe how disruptive such capital flight will be, how little related to a useful equilibrating mechanism?

All of this implies to me that major elements in the actual functioning of the internatinal economy are no longer captured within the theory of international trade. That implies we should be engaged in the reconsideration and the radical restructuring of the contemporary meaning of comparative advantage. Comparative advantage is now a reflection of the unanticipated mobility and the movement of capital. Sometimes such movements are torrential. Such movement of capital, as opposed to the relatively fixed endowments that Ricardo discussed, brings about the volatile movement of exchange rates. That exchange rate volatility in turn will suddenly and substantially alter the position of domestic industries. Thus, we are immediately faced with a dilemma, for here in the American democracy we expect the farmer, the steelworker, the autoworker, the shoe worker, and the textile worker—in short, the voters and those who represent these voters—to accept the higher wisdom that makes them the playthings of these larger economic forces—and most particularly the movement of capital.

Let me turn to my second point: to make the international economic system work *well* there must be recognized rules of the game, accepted by the principal parties. To be sure, some sort of equilibrium will come about as a result of unfettered market forces, but few governments will for long tolerate such a system. All of the principal nation-players will

be obliged to cooperate in order to obtain the benefits of international trade, while not too adversely affecting the interests of the major participants that must be induced to cooperate.

The rules of the game, generally recognized and accepted, for governing international economic activity will not come about automatically. In times past we had such recognized rules for the game—the gold standard especially before World War I and the Bretton Woods system after World War II. To some extent the Bretton Woods framework depended on the United States, as the dominant player, to make it work. It has now broken down. For a system of rules of the game to be effective presupposes not only a framework in which trade and capital flows take place, but also the willingness of national governments to take actions to make the system work.

Such a framework, especially the willingness of national states to take those actions necessary to make the system work, has largely disappeared. Today we see instead behavior that is typically self-centered and ad hoc, designed in response to short-term pressures and having long-term consequences that are pernicious. There was a far deeper wisdom in what emerged after World War II, in which each nation accepted the obligation to take self-correcting actions to correct a long-term disequilibrium in its balance of payments. In the view of those who put together the Bretton Woods system, such action was particularly necessary for the great creditor nations.

Let me point out that in the world today we have only one "great creditor nation." No longer is it the Land of the Free. Rather it is now Japan. Japan has been the chief beneficiary of the relatively free system of international trade. Yet Japan has been singularly insensitive to the obligations imposed upon her by participation in that world trading system from which she has so notably benefited. Today, in addition to that one great creditor nation, there is also a notable has-been creditor nation. It is, indeed, the Land of the Free, our United States, which has lately been transformed into the world's great debtor nation. The United States too, for reasons quite different from Japan, is failing to fulfill its obligations to make the system work.

The third point I wish to make is the decline in the role of conscious policy-making. In its place is a corresponding rise in reliance upon impersonal market forces. I point to this phenomenon simply as a datum. Some will regard this change as unfortunate—or even tragic. Many today will welcome such a change—as reflecting diminished reliance on the presumed clumsiness of government policy and greater reliance on supposedly "superior" market forces. For my purpose at the moment I present it simply as a fact of life.

No doubt, this trend reflects in considerable degree the disappearance of the preponderant economic position of the United States, as it had

emerged at the close of World War II. There has been a loss of real power and of influence on the part of the United States that has become increasingly (and painfully) obvious during the last two decades. The United States faces far greater competition, not only in product markets but in critical technologies as well. The United States thus has lost the luxury of a position of deciding upon the best course of international action relatively free of external pressures upon its own interests. In brief, the possibility has now disappeared that the United States, based upon its own judgments, can be the preponderant influence in achieving needed adjustments in international trade and capital flow.

But there is more to it than that. In addition to the decline in real power, there has been a significant decline in U.S. eagerness to make the system work. In one of his ironical asides, Sir Dennis Robertson referred to the United States after World War I as "the Great Sir Galahad of the West, . . . whose bills were no smaller because his heart was pure." That was a transitory judgment! No such statement would have been made after World II. No other nation could have achieved the same missionary zeal, the same Puritan impulse to labor in the Lord's vineyard, above all to make the system work, that the United States displayed in the two decades after Bretton Woods.

Such altruistic behavior or missionary zeal has not marked the actions of Japan, Germany, or other countries that have emerged in the subsequent period. As Charles Kindleberger has observed, the United States has now lost much of its appetite for providing what he described as "international economic public goods." These are the actions or the institutions that provide spillover benefits for the entire international community, benefits exceeding those accruing to the direct provider.

There has been a contraction of focus, most notably here in the United States, from looking at the world as a whole to concentrating on the interests of the individual nation. The problem is (and here I turn from pointing to a datum of expressing a policy judgment) that the proper functioning of the international economy can only be *satisfactorily* attacked on a systematic worldwide basis. The pity (or the irony) is that as international economic problems have become more urgent and as the need for systemic attack has grown, the motivation that might give force to such a systemic attack has simultaneously decreased.

We are not going to be able to solve the problems that afflict the international trade and financial system unless and until we recognize that it must be a common attack by all the key players, which would accept their separate obligations to make the overall system work well.

Now that I have spelled out my three preliminary points, let me turn to a summary of the present scene. What do we see today? As I have indicated, we have a decline in the role of policy—and a corresponding

rise in the role of economics in the sense of impersonal market forces. We discern both a weakening of the instruments of policy and a weakened desire to define *and achieve* policy goals. The world's largest, and in a limited sense, strongest economy has now become a sink for foreign capital. Once it was regarded as the moral obligation of the United States to serve as a provider of capital to poorer countries. Now the United States has become the sponge that sucks in capital from abroad—at the astonishing rate of over a $100 billion a year.

We also observe an international economy marked by massive shifts in capital, whose direction of flow changes from time to time. Sometimes for reasons apparently economic or for political reasons, such capital movements may become torrential. In general, the capital flows from nations with excessive savings (or insufficient consumption) to those, like the United States, that are marked by excessive consumption and insufficient savings.

These capital movements, subject to reversal, also cause the volatile movements of exchange rates. Such volatility undermines what is indispensible in the modern capitalist system: the reliable calculations essential for making long-lived investments, which depend upon an extended planning horizon.

All in all, the international economy is marked today by ex post balancing of the books—a simple variant of source-and-use analysis. To be sure, there is an examination of how some items move to compensate for other items. All this takes place in a sort of policy void. Not only has there been diminished attention to the policy implications, but there has been remarkably little public consideration of what it all means—for the country and the world.

All of this might be tolerable except for one ineluctable point. *It is unsustainable.* Something that is unsustainable tends to come to an end. What we see today is a system akin to water building up behind a barrage. The water continues to collect behind the barrage until the barrage ultimately collapses.

Where do we want the country to go—politically, strategically, morally, ethically? Are we satisfied to be a sink for international capital. Is self-concern sufficient? Are we content to be the playthings of "impersonal forces"? Are we indifferent to the problems that we create for future generations of Americans, indifferent to the call to aid the less fortunate, indifferent to the need for international stability?

Let me turn now to the critical question: how these broader international developments affect—and in turn are affected by—domestic policies. Domestic *policies* are themselves largely a reflection of domestic *politics*, domestic perceptions and preoccupations, and, if you will, domestic fixations.

I have already more than hinted at my belief that international stability requires intelligent international policy-making. In a sense this sounds like a call for a Kantian Imperative. But how to achieve it in a world of self-centered, economic policies is, of course, the difficult question. Nonetheless, international stability will require at a minimum a harmonization of policies among the principal players in the game.

Such action is, to be sure, in the long-term self-interest of the major nations. Adjustment of the international imbalances is coming. It is unavoidable. The adjustment brought about by "impersonal forces" will prove highly distressing, if not devastating, to some nations. Neither the current American payments deficit nor the trade deficit is sustainable over the intermediate term. But that implies that nations that have become dependent upon export surpluses must seek other means of sustaining levels of employment and output, to say nothing of further economic growth. It also implies a revival of the American manufacturing base. Quite clearly, the decline of the dollar required to bring about a "market adjustment" under these conditions will be as painful to us as it will be to others. The question is not whether existing imbalances will be eliminated, but how.

It seems self-evident that rather than have painful adjustment forced upon individual nations by external conditions, they should seek gradual improvement through deliberate adjustment. I am not particularly optimistic. Over the years I have observed that national policies tend to reflect deep-seated urges rather than rational calculation. The dismal science is perhaps sufficiently dismal that it ought not be additionally burdened with Freudian psychology. But to borrow a Freudian metaphor (for those of you who might welcome it), characteristically national policies are driven more by the Id than by the Ego.

If national policies are not driven by neuroses reflecting overreaction to prior national traumas, such policies at least reflect national habits that are very deeply ingrained. Consider, for example, the quotation cited earlier by David Hale in the *Times:* "the U.S. is a debtor nation with the habits of a creditor nation. Germany and Japan are creditor nations with the habits of debtor nations." Such ingrained national habits prolong the imbalances in the international system. But the new volatility in the international economy, in particular the more rapid movements and the interruptions of capital flows, implies that the slow-paced adjustment based on the alterations of ingrained national habits is no longer adequate. At the moment each of the key nations not only has these deep-seated urges, but appears to have enshrined them. It requires conscious policies successfully carried out to facilitate adjustments. But policy remains dominated by these ingrained habits.

Quite clearly, on the international scene we do not have what economists have regularly presupposed: a rational policy-making model.

Consider the case of the United States. In recent years fiscal policy has been dominated, if not crippled, bu an antitax mood on the part of the public that has precluded revenues even remotely approaching the level of public expenditures on which the public insists. American fiscal policy has become a scandal—in relation either to our prior fiscal standards or to expectations about the behavior of the world's leading power. The public's antitax mood, perhaps now fading, was driven by a belief that we had been conned by government ("fraud, waste, and abuse"), and consequently we came to resent the personal sacrifices that we had borne willingly in the past.

The erosion of the revenue base is driven by two elements. The first is Lafferism. Lafferism propounds the simple rule of thumb or, more precisely, the illusion that if tax rates are cut, somehow, through the release of pent-up energies, there will be an immense gusher of revenues that will more than offset the decline in tax rates and thus bring about fiscal balance. Lafferism provided us with a rationale, however flimsy, for doing what we apparently wanted to do anyhow.

The second element was the antitax revolt. In its more civilized form it is provided a certain respectability in the editorial pages of the *Wall Street Journal* and other publications. In its more dramatic—and certainly more primitive form—it is embodied in Proposition 13, passed in California in the mid-1970s. It is based upon the belief that if one cuts revenues, that one will be obliged to reduce expenditures. In that fashion it has worked in California with its ever-growing population and revenue base and somewhat luxuriant levels of expenditures, as well as its balanced budget requirement. Its imitations elsewhere have been less successful.

At the federal level the conviction took hold, after the Lafferist hope that we could have our fiscal cake and eat it too proved illusionary and ephemeral, that the reduction and revenues would "force" the Congress sharply to reduce domestic programs, presumably unwanted and wasteful.

Curiously, this conviction existed in parallel with another conviction—that the Congress would be prepared to accept an extended military buildup over the years in which military outlays would ultimately reach about 9 percent of the Gross National Product.

As might be expected, the device of revenue-denial-to-limit-expenditures has proved to be a half truth. Congress has not been "forced" sharply to reduce domestic programs. It has imposed restraints, but the radical shrinkage in projected appropriations has occurred in President Reagan's proposed military buildup. Congress imposed limits as early as 1982. By 1985 it had begun to impose real

annual reductions in defense expenditures. Rather than rising toward the 9 percent of the Gross National Product as intended, defense appropriations are now shrinking back toward the 6 percent level. While limiting revenues clearly does reduce expenditures, only one with ideological blinders could have expected a different outcome.

To sustain the now-ingrained habits and the expectations of Americans would require an immense and continuing inflow of foreign capital resulting in a steadily burgeoning level of American indebtedness to foreigners. Americans have come to like high consumption, low or zero savings, low tax rates. Americans have also liked the high dollar (a demand now rapidly being eroded). That high dollar not only satisfies personal needs when one travels abroad; it has also been a major element in national security and in our international role. One consequence of the fall of the dollar will be a deterioration in the international security position of the United States. We shall find it both increasingly costly and increasingly difficult to sustain our commitments. In an earlier period in which the dollar declined, we saw the pressures for the Mansfield amendment and similar difficulties. As the living standards and the treatment of our forces overseas deteriorate, domestic political pressures build within the United States to reduce the level of forces. The high dollar may be our historic preference; it may be in our own national security interest and clearly even more in the national security interest of our allies. Nonetheless, the high dollar is a thing of the past. It can no longer be sustained—even by immense inflows of foreign capital.

A debtor nation will find it difficult to sustain the international security obligations that the United States has borne. This points to a larger truth. If Americans are to sustain their present habits—low domestic savings, large capital imports, the center of the free world's security system—ultimately it would require that foreigners be prepared periodically to wipe out their claims against the United States. This is not a likely development.

Let me cite one other national habit that may no longer be a luxury we can afford. In the United States we tend to confuse the free economy with laissez-faire. But nothing about the free market implies that anything goes. That results in the misdirection, indeed the waste, of the energies of our senior executives. Many of our senior executives, who are not investing their time searching for new takeover targets, are spending much of their time either fending off corporate raiders or searching for the white knights who contingently will help them fend off corporate raiders. From a national standpoint, much of such activity represents sheer waste. It contributes little to the more efficient production of goods and services or to the improvement of American "competitiveness." I suspect that this point may lie behind Secretary

Darrman's stringent comments regarding the inefficiencies and misdirected efforts of American executives.

Let us turn to the deep-seated urges and their effects in places other than the United States. Consider what might be the polar contrast to the United States: the case of Japan. Japan is the archetype of the creditor nation with the ingrained habits of a debtor. Among the market economies, Japan has achieved a persistent and remarkable performance as a savings-generating machine. But Japan has no effective way of absorbing such high savings into domestic investment. Consequently, in flagrant violation of the spirit of Bretton Woods, its economic performance has become vulnerably dependent upon the maintenance of a large export surplus. If the Japanese wish to sustain a high-savings, low-consumption, high-employment economy driven by an export surplus, it must accept periodic extinction of the claims against foreigners, notably the extinction of claims against the United States. Otherwise, the Japanese economic "style" is unsustainable. Only the American market could absorb over many years the outflow of goods that the Japanese produce. Ultimately, even the American capacity for the absorption of Japanese exports is becoming satiated.

While Japan may be the polar case, what is true for Japan is also true for others. Ultimately it is true for the Federal Republic, even though German membership in the European economic community provides a cushion for sustaining German exports. Ultimately it will also be true for Korea, a kind of post-Japan Japan. The Koreans possess a cushion in their margin for raising their very low living standards. But in the long run it too must change. The simple truth is that no great trading nation can over a long period of time be dependent for its economic health on the maintenance on a very large trade surplus.

Just as the American trade deficit cannot be indefinitely sustained, so those economies dependent upon export surpluses will ultimately find that neither can they be sustained. The question is not whether these balance of payments anomalies, which over recent years we have observed with increasing clarity and concern, will be eliminated; the only questions are when and how. Will the return to a sustainable long-term equilibrium be based on gradual adjustment reflecting conscious policy—or, conversely, will it reflect a sudden so-called market adjustment or an angry political reaction?

Economists sometimes refer either mysteriously or hopefully to self-correcting forces. The normal inference is that such self-correcting forces imply smooth transitions. Indeed, there are such self-correcting forces. But they need not convey a smooth adjustment to a new equilibrium. Rather those self-correcting forces will appear, as in Greek mythology, as Nemeses.

The U.S. trade deficit, which has swollen to bizarre levels, inevitably will disappear. That is not a guess: that is an inevitability (Feldstein

1987). And, in terms of economic time, it will end relatively soon—not necessarily in the next few years, but clearly within the next decade. When the decline sets in, it will proceed rapidly. The ability of the rest of the world to absorb either dollars or dollar claims against the United States is not unlimited.

Thus the activity on Capitol Hill represents a belated reaction. As is so frequently the case, it represents an attempt to lock the barn door after the horse has been stolen. (It might also be observed that a good deal of the handwringing about "protectionism," given U.S. trade deficits in excess of $150 billion dollars a year, is also exaggerated.) It is not wise to invest too much energy in protesting against inevitability. Other nations in the world should prepare for the day that the U.S. trade deficit will be eliminated.

Economists sometimes have a rather naïve faith in the role of the price mechanism and therefore in the likelihood of smooth adjustments. But if decisions, as is so regularly the case, are not based on the presupposed economic rationality, adjustments, rather than being smooth, may come in the form of an earthquake. Far more frequently than contemplated in economic models, real-world decisions are based on ingrained habits, bilateral relations, or sheer national prejudice or self-centeredness. Consequently, the likelihood is high that real-world adjustment will be traumatic.

Curiously enough it is not the United States that will suffer most from the elimination of the American trade deficit. To be sure, the rate growth of U.S. living standards will be squeezed, even if there is not an actual reduction for a few years. But that pain should be partially relieved by the revivification of the American manufacturing base and an employment boom.

It is the export-oriented, export-dependent nations that ultimately will suffer the most from the elimination of these unsustainable trade imbalances. The most obvious sufferer will be Japan, but others will suffer as well. As the American trade deficit is sharply reduced, those overseas suppliers will experience the painful loss of foreign markets. They will also experience the high cost embodied in the wastage of invested capital which we so dramatically saw at the time of the oil shocks. There will be a rise in unemployment, concentrated in the export-oriented nations but spreading beyond them.

The conclusion that one is led to is rather pessimistic—a dismal note going beyond the dismal science. It reflects psychological considerations—those deep-seated national impulses to which I referred earlier. Economists find it easy to paint a smooth transition from one static equilibrium to another. One can, of course, theorize about Japan adjusting rapidly, or Germany adjusting rapidly, to changes in the external market. But both countries are marked by those deeply ingrained national habits. I do not think—as a practical as opposed to a theoretical

matter—that Japan can rapidly make the kind of adjustments outlined in the Maekawa report. Consequently, as the American trade deficit recedes, the Japanese will be unable to avoid the lengthy period of economic difficulty.

Despite some notable differences, the conclusion regarding Germany is similar. While Germany's positions may be eased by its membership in the European economic community, its "neurosis" regarding anything that smacks of inflation is even more deep-seated. Thus, government policies designed to stimulate domestic demand, as the export surplus shrinks, will face substantial psychological and political obstacles. Both the demographic structure of its population with the high proportion of the aging and the prospective shrinkage of the population add to the difficulty of justifying expenditures on domestic infrastructure in stimulating additional consumption.

Earlier I emphasized the desirability of conscious policy-making within the international community as the preferred way to achieve adjustment. I strongly believe that such action, akin to the enlightened institution-building after World War II, is the proper way to deal with the imbalances and distortions in the international economy. But later I have conceded that the psychological obstacles, those deep-seated national impulses, will make exceedingly difficult the acceptance by individual nations of the required actions. I began by stating my intention to present certain propositions that some of you might regard as heretical. I believe I have done just that. If in the academic world there is the equivalent of a defrocked priest, it may apply to a sometime economist who will have his Ph.D. rescinded.

Reference

Feldstein, Martin. 1987. Correcting the trade deficit. *Foreign Affairs*, Spring.

Summary of Discussion

Several people commented on the shape that the world economy will take when the imbalance in the U.S. current account is eliminated. James Schlesinger suggested that eventually the United States should run a current account surplus, as befits the biggest economy in the world. This implies a substantial revival of manufacturing, as the public relearns to purchase American goods. One of the implications of this, he noted, is that a lot of capital investment is needed in electric power generating capacity.

Peter Peterson remarked that he would be interested in investigating the compatibility, in the context of a global model, of a balanced U.S. current account, given that the United States now imports 60 percent of the manufacturing exports of the third world. Martin Feldstein thought it could be compatible, and Anne Krueger agreed, suggesting that an American current account balance would be compatible with third world needs due to the corresponding shift in the capital flows toward LDCs, allowing their imports to rise.

Lionel Olmer was impressed with the prediction of an elimination of the trade deficit in the near future. There is no sign of this reduction now nor of any resurgence in manufacturing. Schlesinger responded that the prediction of a recovery in manufacturing follows from the projected elimination of the trade deficit. This will presumably happen, he reasoned, with some increase in quality but primarily through an increase in price competitiveness. When foreigners no longer want to to accept U.S. obligations, the transformation of the balance of payments will occur. When this happens depends on political psychology, but Schlesinger predicted it within five or seven years. Several people pointed out that the satiation of foreign borrowers is happening faster than it might seem since recently foreign governments have been filling in for falling private demand for U.S. obligations.

Martin Feldstein remarked that a large fraction of the adjustment in the real exchange from its peak may already have taken place, and agreed with Rudiger Dornbusch and Jeffrey Frankel, who both claimed that the trade deficit would decrease to about $100 billion per year as a result of the recent fall of the dollar to its current level.

Several participants raised some doubts about the prospects for a smooth adjustment process. Anne Krueger suggested that without a decrease in excess demand in the United States, there will be little change in the situation and then a sudden crash. Charles Parry summarized the problem by observing that our consumption is greater than our income and worried that, since Americans seem to respond primarily to crises, it would be difficult to solve the aggregate problems without some real economic conflagration.

Schlesinger feared the effects of a large fall in the dollar, noting the impact of a low dollar-mark exchange rate on the real wages of American soldiers and their families in Germany and hence on the willingness of Americans to support the U.S. troop commitment to NATO. He echoed the fears of an economic crisis, suggesting that sustained inflation is a real possibility given the low tolerance in the United States for high unemployment and the likelihood that the fall in the dollar and the weakening of foreign competition will also lead to the restoration of union bargaining power.

Feldstein asked why the Japanese in particular focus on protecting imports at the cost of an even stronger yen and greater loss of exports

instead of letting the market allocate the pain. Saburo Okita replied that there is a trade-off between voluntary export restraint and letting the yen appreciate. In this context, Okita recalled an occasion about seven or eight years ago in London when several British economists said that the British government needed to establish import penetration ratios in twenty major industries and noted a similar trend currently in the United States. Quantitative limits may be better than allowing full exchange rate adjustment because with only price adjustment the dollar may fall too low, leading to low growth in Japan and Germany, decreased demand for American exports, and a vicious circle.

Schlesinger's fears about a pure exchange rate adjustment, which he noted would happen if nothing else does, were about its effects on foreign policy. A radical political change in the world could result from a drastic fall in the dollar. American strategic objectives would change, and the ethical obligation to provide for the poor would not be likely to revive. Grand policy aspirations, he suggested, are the luxury of a creditor nation.

In conclusion Schlesinger outlined three political-economic scenarios, in order of decreasing likelihood. First, a steep fall in the value of the dollar could lead to an increase in inflation and interest rates, while a failure to deal with the budget deficit could cause aggregate demand to remain high, leading to high interest rates and stagflation.

In a second and perhaps overly optimistic scenario, in Febraury 1989 a new president oversees an attack on the new problems facing the country and a sixty-day campaign is waged on incorrect domestic policies, based on some of the principles we have discussed today. The third possibility is an external shock, probably caused by an adventuresome third world country.

Robert Bartley explained that he had a different model from most of the people at the conference. He never believed in the Club of Rome predictions, never thought that James Schlesinger's 50 cent/gallon gasoline tax was the answer to the energy crisis, and disagrees with much that has been said at this conference.

He argued that the balance of trade numbers themselves should be of little concern. Next to M1, the balance of trade is the most misleading economic statistic reported. We had a trade deficit for our first one hundred years as a nation, and the only time we have had a surplus was during the Great Depression. The trade deficit is not a problem: to straighten it out we need only a recession, and protectionism would lead to this recession.

Bartley recalled that Alan Reynolds in the *Wall Street Journal* recently collected quotations from many years ago asking how long Japan could continue to buy from the rest of the world twice what it sells. Well, it turned out that the answer was twenty years.

The trade debate is a mercantilist debate, and the best solution to the problem would be to stop collecting figures, but since this is not good for the economics profession it would be better to publish five trade balances as was done until 1976. The problem with analysis based on this number is Where is the bottom line? The deficit is not a sign of weakness. Americans buy Japanese cars; Japanese buy U.S. asets; we are all consenting adults, so who cares? We are recycling excess Japanese savings into the world economy, which is a good thing for all concerned.

We have overcome a great inflation without a great depression, so far, and this is remarkable. There has been rapid job creation and a five-year expansion, and the U.S. trade deficit has kept it going. We need some aggregate demand in the world.

In the process, foreigners have acquired debt, but what is the significance of who holds the debt? Does it really matter if it is in a safe in Zurich or a safe in New York, and which citizen holds it?

The dollar will not go to 120 yen. If it did, it would be inflationary in the United States and contractionary in Japan, and the Fed would tighten as the Japanese loosened, and the dollar would arrest its fall. This would lead to what we need, faster Japanese growth and slower U.S. growth, and the trade balance will straighten out. The problem has been that for a long time Japanese and German monetary policy has been too tight. As they recognize this too, the deficit will correct itself, Bartley concluded.

Schlesinger suggested that Bartley's strategic model is entirely different from his economic model, and he acknowledged that though Bartley's remarks were generally true, the implication is that the United States will decline relative to Japan and Germany, and the strategic and political implications of this would be serious. Bartley rejected a dichotomy between his models, proposing that he and Schlesinger agreed that a strong economy was important and disagreed only about what makes a strong economy. He added that usually a strategic power with a strong economy also has a fixed exchange rate and a convertible currency.

Rudiger Dornbusch suggested that the U.S. budget deficit might belong in Bartley's model. He also subscribed to the idea that there is a difference between a trade deficit in capital goods and a trade deficit in consumer goods, so the comparison with Korea and Japan might be specious. He asked Bartley about the difference between the U.S. situation now and that of Chile and Argentina in the 1970s. He proposed that a distinction would have to be based on the ability of the United States to raise a lot of tax revenue at the end of the consumption spree. Bartley answered that the difference is that their foreign debt is denominated in dollars while our debt is in dollars, so we have greater leverage.

Martin Feldstein argued that the income elasticities of import demand demonstrate that the trade balance effects of faster growth abroad and slower growth here will not redress the trade balance. For example, an increase of two percentage points in non-U.S. growth in the entire world would lead to only a $15 billion or $20 billion decrease in the U.S. trade deficit over two or three years. Something else has to give, he concluded. Bartley said that he had seen other figures and in any case it will be an interesting test.

Thomas Enders emphasized the impact of running trade deficits on the ability of the country to lead and to sustain a consensus for defense. As foreign central banks substitute for private foreign investors in holding U.S. assets, the United States loses the ability to decide on its own reserves and exchange rate. Bartley interpreted the large amount of official financing of the U.S. deficit by foreign central banks in 1986 to mean that these banks are already feeling the pinch of the lower dollar. Up to now they have been intervening in a sterilized fashion, without affecting their domestic money supply. This is stupid and ineffectual and soon they will have to change their money supply, which will stabilize exchange rates.